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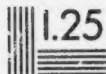
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DEPARTMENT OF MINES

Hon. SIR JAMES A. LOUGHEED, MINISTER; CHARLES CAMSELL, ACTING DEPUTY MINISTER

MINES BRANCH  
EUGENE HAANEL, PH.D., DIRECTOR

THE  
PRODUCTION OF COAL AND COKE  
IN  
CANADA

During the Calendar Year  
1919

John McLeish, B.A.  
*Chief of the Division of Mineral Resources and Statistics*



OTTAWA  
THOMAS MULVEY  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY  
1921

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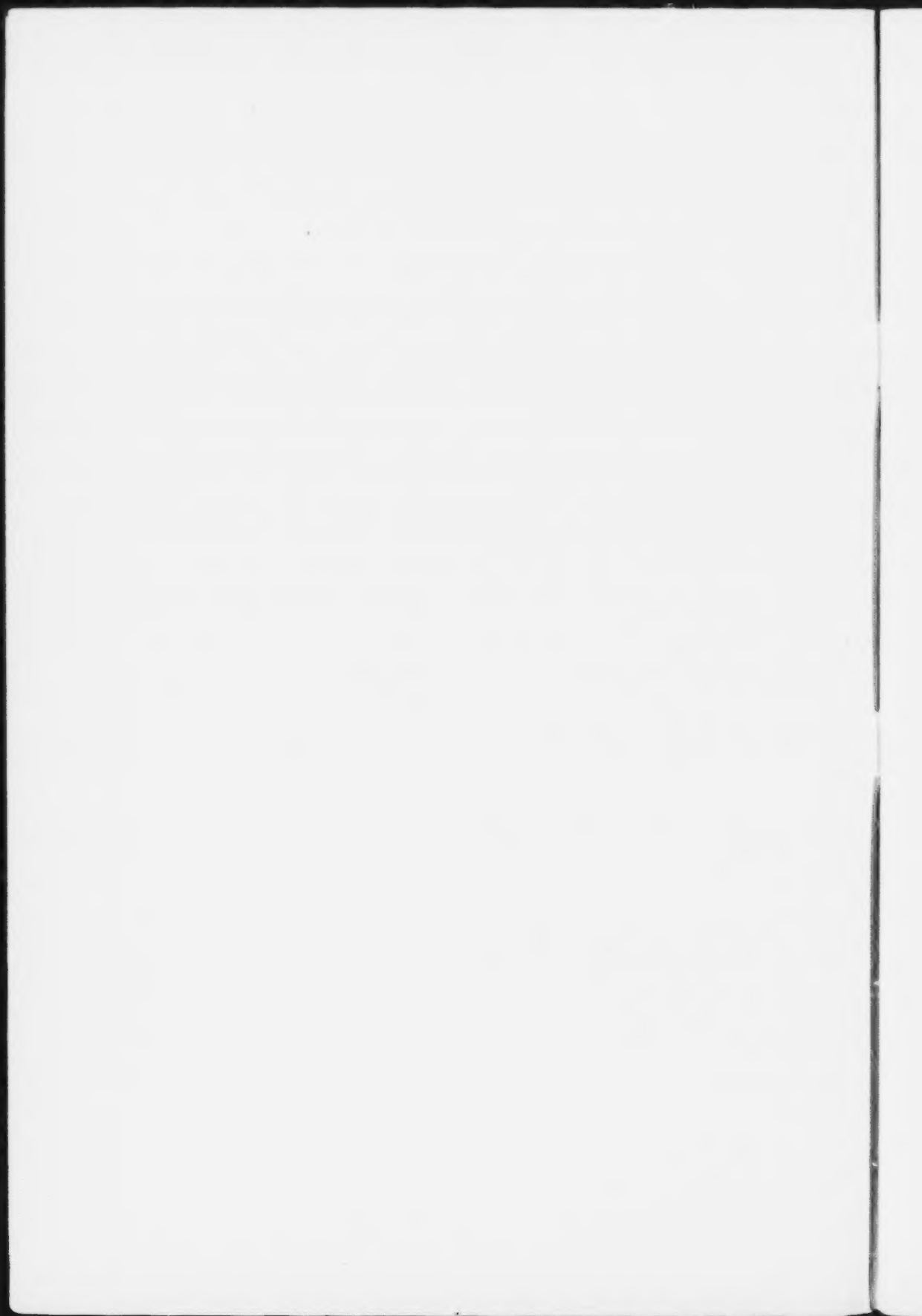


OTTAWA  
THOMAS MULVEY  
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1921



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## COAL.

The term "production" in the text and tables of this report is used to represent the tonnage of coal actually sold, or used, by the producer, as distinguished from the term "output," which is applied to the total coal extracted from the mine, and which includes, in some cases, coal lost or unsaleable or coal carried into stock on hand at the end of the year.

The production of coal during 1919 was 13,681,218 short tons (12,215,373 long tons), valued at \$54,413,349, or an average of \$3.98 per ton, as compared with a production in 1918 of 14,977,926 short tons (13,373,148 long tons), valued at \$55,192,896, or an average of \$3.68 per ton, a decrease in production in 1919 of 1,296,708 tons, or 8.6 per cent.

The average number of men employed during 1919 was 27,198, and total wages paid \$34,826,363, as compared with an average of 25,419 men employed in 1918, and \$32,899,501 paid in wages.

The values of the production in 1917, 1918 and 1919 have for all provinces been furnished directly by the operators. In 1916 and previous year, however, complete returns of values were not received from all operators, and the values placed upon the coal production in the provinces of Nova Scotia and British Columbia were partially estimated, or assumed.

In 1886 Canada's consumption of coal was 3,480,111 tons, of which 46 per cent was obtained from Canadian coal mines and 54 per cent imported chiefly from the United States. The annual consumption per head of population was about three-quarters of a ton.

In 1919 the consumption of coal was 28,863,017 tons, in 1918 it was 34,771,832 tons, and in 1917, 33,123,785 tons. The percentage of the total derived from Canadian mines in 1919 was 40 and the percentage imported, 60. The consumption per capita during 1918 was over 4 tons, with a smaller rate of consumption in 1919. During the 33 years that have elapsed since 1886 Canada's coal consumption has increased practically tenfold in total tonnage and over 5 times in rate per head of population. But throughout this period the ratio of domestic to imported coal in the annual consumption has varied within quite narrow limits. The year of maximum proportion of contribution from Canadian sources was in 1903, when Canadian coal formed over 52 per cent of the total; the lowest proportion was in 1917, when only 37.2 per cent of the consumption originated in Canada. Throughout this period, too, exports of Canadian coal have not averaged more than 10 per cent of the quantity imported.

During the past three years the actual coal shortage in central Canada, due to conditions created by the war, and the threats of serious and dire consequences that might readily ensue, were that shortage to become acute, have served to draw public attention very strongly to a situation which the public records have shown to exist for many years. The fuel shortage has not only resulted in the imposition of abnormally high and possibly unjustifiable prices but has actually restricted in many instances industrial activity.

There is no actual shortage of coal resources in either the United States or in Canada, at least in so far as bituminous coal is concerned, so that the problem involved relates primarily to questions of production and distribution.

The Canadian coal-fields are situated in the extreme east and in the western provinces, while the great central provinces of Ontario and Quebec, the chief



centres of population, are more easily and, presumably, more economically supplied with coal from the nearer coal-fields of Pennsylvania and Ohio. Further, there is no anthracite coal in eastern Canada, which has grown dependent upon the anthracite output of Pennsylvania for that most desirable of the domestic fuels, since anthracite is not only the chief domestic or house fuel in Ontario, and Quebec, but is imported even into Nova Scotia coal districts, and has been largely used also in Manitoba and Saskatchewan.

In round numbers, Canada produced during 1919 about 13.5 million tons of coal, of which 2 million tons were exported, and imported 12.3 million tons of bituminous coal and 5 million tons of anthracite. During the previous year, 1918, we produced in round numbers 15 million tons, exported 1.8 million tons, and imported 16.8 million tons of bituminous coal, and 4.8 million tons of anthracite; thus, both production and imports were considerably reduced in 1919. Such a condition of international trade and dependence upon foreign supply attracted little attention during normal times.

Under the stress of war conditions when it became apparent that production would not meet demand action was taken both in the United States and in Canada to place the entire fuel situation under Government control. The regime of Canadian fuel control extended from June 11, 1917, to March 5, 1920.

In commenting on the policy of the United States with respect to the exportation of anthracite coal, the Fuel Controller, Mr. C. A. Magrath states:—<sup>1</sup>

"The Government (of the United States) has on different occasions appointed Committees to investigate the operations of these (anthracite mining) companies, and inquired into their methods of mining and their manner of conducting their business generally. But as far as the Fuel Controller is aware, nothing has ever developed in these investigations, which would indicate any desire on the part of the United States Administration to prohibit the exportation of anthracite. During the crisis just past, Canada was treated almost, if not absolutely, as an integral part of the union. Of course, it is within the realm of possibility that at some future date the United States might desire to retain their whole supplies of anthracite for the use of their own people. In such an eventuality, Canada would no doubt be given several years notice within which to arrange for replacing such supplies as are then being imported."

With respect to coal trade generally he states:—<sup>2</sup>

"The coal operators both in the East and the West should be encouraged as far as possible to make the most of the domestic markets and thereby decrease the amount of foreign coal imported.

"Under ideal conditions, however, there is a large market in Canada which Canadian producers have been unable to enter, owing to its distance from the coal fields, and this market, has, therefore, been supplied with foreign coal. To what extent this home market can in the future be served by the Canadian product is a problem that requires careful consideration."

The Fuel Controller's report constitutes a detailed and comprehensive analysis of the Canadian fuel situation.

### Production of Coal by Provinces, 1919

Province	Average No. of men Employed	Wages Paid	Production of Coal		Average Per Ton	Per cent of total Quantity
			Short tons	Value		
		\$		\$	\$	
Nova Scotia.....	10,978	13,970,149	5,720,373	22,078,726	3.859	41.81
New Brunswick.....	565	503,268	179,108	794,761	4.422	1.31
Saskatchewan.....	487	467,436	380,169	820,522	2.158	2.78
Alberta.....	9,343	11,414,755	4,964,535	18,294,495	3.685	36.29
British Columbia.....	5,813	8,465,255	2,435,933	12,420,445	5.098	17.80
Yukon Territory.....	12	5,500	1,100	4,400	4.000	0.01
Total.....	27,198	34,826,363	13,681,218	54,413,349	3.977	100.00

<sup>1</sup>Final Report of the Fuel Controller, March, 1919—p. 41.

<sup>2</sup>Final Report of the Fuel Controller, March, 1919—p. 37.

### Production of Coal by Provinces, 1918

Province	Average No. of Men Employed	Wages Paid	Production of Coal			Per cent of Total Quan- tity
			Short Tons	Value	Average Per Ton	
		\$		\$	\$	
Nova Scotia.....	10,361	13,069,322	5,818,562	21,095,470	3.63	38.85
New Brunswick.....	576	631,323	268,212	1,331,710	4.97	1.79
Saskatchewan.....	460	423,392	346,847	722,148	2.08	2.31
Alberta.....	9,032	11,382,406	5,972,816	20,537,287	3.44	39.88
British Columbia.....	4,982	7,384,358	2,568,589	11,494,681	4.47	17.15
Yukon Territory.....	8	8,700	2,900	11,600	4.00	0.02
Total.....	25,419	32,899,501	14,977,926	55,192,896	3.68	100.00

### Comparison of Production, 1917 with 1918, and 1918 with 1919

Province	(i) Increase, or (d) Decrease			
	Years 1917 and 1918		Years 1918 and 1919	
	Short Tons	%	Short Tons	%
Nova Scotia.....	(d) 508,529	8.04	(d) 98,189	1.69
New Brunswick.....	(i) 79,117	41.84	(d) 89,104	33.22
Saskatchewan.....	(d) 8,598	2.42	(i) 33,322	9.61
Alberta.....	(i) 1,236,448	26.11	(d) 1,008,281	16.88
British Columbia.....	(i) 134,701	5.53	(d) 132,656	5.16
Yukon Territory.....	(d) 1,972	40.48	(d) 1,800	62.07
Total for Canada.....	(i) 931,167	6.63	(d) 1,296,708	8.66

The total production in 1919 included 111,324 tons of anthracite, or less than 1 per cent of the total; 10,642,902 tons of bituminous, or 77.8 per cent of the total, and 2,926,992 tons of lignite, or 21.4 per cent of the total.

The total production in 1918 included: 115,405 tons of anthracite, or less than 1 per cent of the total; 11,636,190 tons of bituminous, or 78 per cent of the total, and 3,226,331 tons of lignite, or over 21 per cent of the total.

The consumption of coal during the year included approximately 5,063,999 tons of anthracite, 20,872,026 tons of bituminous, and 2,926,992 tons of lignite.

The consumption of coal during 1918 included: 4,900,565 tons of anthracite, 26,644,936 tons of bituminous, and 3,226,331 tons of lignite.

The total output, production, and distribution of coal mined by provinces during 1919 and 1918 is shown in the following tables:—

# Production and Distribution of Coal Mined, by Provinces, 1919

(In short tons.)

	Nova Scotia	New Brun- swick	Sas- katche- wan	Alberta	Yukon	British Colum- bia	Total
Sold in Canada.....	4,274,874	163,275	354,319	4,455,972	1,100	1,168,122	10,417,662
Sold for export to U.S.....	12,119	8,504	80	121,264		852,704	994,671
Sold for export to other coun- tries.....	584,614						584,614
Total sales.....	4,871,607	171,779	354,399	4,577,236	1,100	2,020,826	11,996,947
Used by producers in making coke, steel, brick, etc.....	222,269		6,715	3,818		163,116	395,918
Used by producers for colliery consumption and by workmen.....	626,497	7,329	19,055	(a) 383,481		251,991	1,288,353
Total used.....	848,766	7,329	25,770	387,299		415,107	1,684,271
Production*.....	5,720,373	179,108	380,169	4,964,535	1,100	2,435,933	13,681,218
Difference in stocks.....	+41,574	-879	+45	-51,742		-23,535	-34,537
Losses due to breakage or other causes.....	42,727	209	3,903	91,475	100	295,560	433,974
Total Output.....	5,804,674	178,438	384,117	5,004,268	1,200	2,707,958	14,080,655

\* Production is obtained by adding coal sold and coal used.

a. Includes coal used in manufacture of briquettes.

# Production and Distribution of Coal Mined, by Provinces, 1918

(In short tons.)

	Nova Scotia	New Brun- swick	Saskatche- wan	Alberta	Yukon	British Columbia	Total
Sold in Canada.....	4,208,825	197,203	324,661	5,362,469	2,900	1,113,120	11,209,184
Sold for export to U.S.....	417,109	61,840		132,765		842,986	1,354,694
Sold for export to other coun- tries.....	212,882					65,427	278,309
Total sales.....	4,838,816	259,043	324,661	5,495,234	2,900	2,021,533	12,842,187
Used by producers in making coke, steel, brick, etc.....	277,981		2,702	108,804		309,657	699,144
Used by producers for colliery consumption and by work- men.....	801,871	9,169	19,484	368,718		237,393	1,436,635
Total used.....	1,079,752	9,169	22,186	477,522		547,050	2,135,739
Production*.....	5,818,562	268,212	346,847	5,972,816	2,900	2,568,589	14,977,926
Difference in stocks.....	-32,811	-2,481	+19	+10,333		+24,528	-412
Losses due to breakage or other causes.....	50,619	854	2,122	143,294		285,982	482,871
Total output.....	5,836,370	266,585	348,988	6,126,443	2,900	2,879,099	15,460,385

\* Production is obtained by adding coal sold and coal used.

## Distribution of Coal Mined during the Years 1914-15-16-17

In short tons.

	1914	1915	1916	1917
Sold in Canada.....	10,359,390	9,826,712	10,701,530	10,469,468
Sold for export to United States.....	1,181,536	1,330,718	1,451,075	1,301,881
Other countries.....	239,927	297,343	284,513	301,060
Total sales.....	11,780,853	11,454,773	12,437,118	12,072,409
Used by producers for the manufacture of coke, for colliery consumption, and by workmen.....	591,331	701,975	804,814	690,573
Production.....	1,265,345	1,110,275	1,241,463	1,283,777
Difference in stocks.....	13,637,529	13,267,023	14,483,395	14,046,759
Loss due to washing, breakage, or other causes.....	-83,123	-99,294	-53,527	-7,760
Total output.....	434,337	312,467	385,835	396,392
	13,988,743	13,480,196	14,815,703	14,435,361

A record of the monthly production of coal by provinces is given in the following tables:—

In Nova Scotia, New Brunswick, British Columbia, and the Yukon this production is all bituminous coal; that of Saskatchewan is all lignite, while the production in Alberta includes the three classes, semi-anthracite, bituminous and lignite. A record of the monthly production of these three classes of coal in Alberta will be found in the section of this report dealing with that province.

### Monthly Production of Coal by Provinces, 1919

In short tons

Months	Nova Scotia	New Brunswick	Saskatchewan	Alberta			British Columbia	Total
	(b)	(b)	(c)	(a)	(b)	(c)	(b)	
January.....	501,536	21,788	28,034	12,730	282,908	204,410	240,200	1,291,606
February.....	405,112	16,262	23,937	11,045	265,431	147,545	185,072	1,055,004
March.....	420,460	14,529	26,164	13,414	278,377	210,994	212,646	1,176,584
April.....	454,398	13,339	16,001	13,679	214,830	96,015	185,444	994,306
May.....	451,127	12,011	18,588	76	169,549	95,439	182,661	929,451
June.....	433,890	13,627	20,337	39	4,328	37,794	127,710	637,725
July.....	467,042	14,249	20,971	750	7,226	55,826	154,859	721,283
August.....	484,437	15,691	26,900	2,611	33,006	117,630	168,660	849,335
September.....	489,369	13,821	35,327	12,278	208,657	286,584	213,780	1,260,156
October.....	509,790	17,376	48,153	14,673	279,096	390,475	252,794	1,572,357
November.....	508,957	16,028	55,367	13,907	284,578	433,345	256,413	1,568,593
December.....	534,255	10,389	60,390	15,522	278,402	470,166	255,694	1,624,818
Total.....	5,720,373	179,108	380,169	111,324	2,306,388	2,546,823	2,435,933	*13,681,218

\*Includes 1,100 tons produced in the Yukon District, during third quarter.

(a) Anthracite. (b) Bituminous. (c) Lignite.

Statistics of the annual production of coal from 1881 to date are given in the following table.

The total production of coal in Canada from 1785 to 1919 has been 297,158,478 tons; of this amount Nova Scotia is credited with 177,539,045 tons, or 59.7 per cent of the total; British Columbia, 62,900,741 tons, or 21.17 per cent; Alberta, 51,072,492 tons, or 17.20 per cent; Saskatchewan, 3,906,587 tons, or 1.31 per cent; New Brunswick, 1,603,448 tons, or 0.5 per cent, and the Yukon Territory, 136,165 tons, or 0.05 per cent.

## Annual Production of Coal

Year	Short tons	Value	Average per ton	Year	Short tons	Value	Average per ton
1785-1880.....	16,426,253	\$28,190,518	\$ 1.72	1901.....	6,486,325	\$12,699,243	\$ 1.96
1881.....	1,537,106	2,688,621	1.75	1902.....	7,466,681	15,210,877	2.04
1882.....	1,848,148	3,248,446	1.76	1903.....	7,960,364	15,942,833	2.00
1883.....	1,818,684	3,109,635	1.71	1904.....	8,254,595	16,592,231	2.01
1884.....	1,984,959	3,593,831	1.81	1905.....	8,667,948	17,520,263	2.02
1885.....	1,920,977	3,417,807	1.78	1906.....	9,762,601	19,732,019	2.02
1886.....	2,116,653	3,739,840	1.77	1907.....	10,511,426	21,381,842	2.32
1887.....	2,429,330	4,388,208	1.81	1908.....	10,886,311	25,194,573	2.31
1888.....	2,602,552	4,674,140	1.80	1909.....	10,501,475	24,781,236	2.36
1889.....	2,658,303	4,894,287	1.84	1910.....	12,909,152	30,909,779	2.39
1890.....	3,084,682	5,676,247	1.84	1911.....	11,323,388	26,467,646	2.34
1891.....	3,577,749	7,019,425	1.96	1912.....	14,512,829	36,019,044	2.48
1892.....	3,287,745	6,363,757	1.94	1913.....	15,012,178	37,334,940	2.49
1893.....	3,783,499	7,359,080	1.95	1914.....	13,637,529	33,471,801	2.45
1894.....	3,847,070	7,429,468	1.93	1915.....	13,267,023	32,111,182	2.42
1895.....	3,478,344	6,739,153	1.94	1916.....	14,483,395	38,817,481	2.68
1896.....	3,745,716	7,226,462	1.93	1917.....	14,046,759	43,199,831	3.08
1897.....	3,786,107	7,303,597	1.93	1918.....	14,977,926	55,192,896	3.68
1898.....	4,173,108	8,224,288	1.97	1919.....	13,681,218	54,413,349	3.97
1899.....	4,925,051	10,283,497	2.09				
1900.....	5,777,319	13,742,178	2.38	Grand total..	297,158,478	709,305,549	2.39

## Exports of Canadian Coal.

Statistics of the exports of coal according to the Trade records are given in the following tables. The exports of Canadian coal in 1919 were 2,070,050 tons, valued at \$12,438,885, or an average of \$6.01 per ton, as compared with exports in 1918 of 1,817,195 tons, valued at \$9,405,423, or an average of \$5.18 per ton. Besides Canadian coal exported there is also a small export of coal not the produce of Canada.

## Annual Exports of Coal

In short tons

Calendar year	Produce of Canada	Not the produce of Canada	Calendar year	Produce of Canada	Not the produce of Canada
1908.....	1,729,833	102,071	1914.....	1,423,126	83,137
1909.....	1,588,099	161,098	1915.....	1,766,543	59,690
1910.....	2,377,049	159,859	1916.....	2,135,359	62,783
1911.....	1,500,639	133,943	1917.....	1,733,156	47,328
1912.....	2,127,133	46,706	1918.....	1,817,195	67,486
1913.....	1,562,020	66,566	1919.....	2,070,050	59,988

## Imports of Coal

The total imports of coal of all classes in 1919 "entered for consumption" as per the published Trade reports were 17,308,837 tons, valued at \$61,160,799, as compared with total imports in 1918 of 21,678,587 tons, valued at \$71,650,584.

Imports of coal into Canada are subdivided into four classes as follows: anthracite, egg, grate, stove, and nut; anthracite: rice, barley and buckwheat; bituminous, round and run-of-mine; and bituminous slack such as will pass through a three-quarter-inch screen.

The imports of anthracite in 1919 included: 4,758,419 tons of egg, grate, stove and nut, valued at \$30,948,590, or an average of \$6.50 per ton, and 194,256

tons of rice, barley and buckwheat, valued at \$647,104, or an average of \$3.33 per ton, as compared with total imports in 1918 of 4,785,160 tons, valued at \$26,007,888, or an average of \$5.44 per ton. The imports of bituminous coal of all classes in 1919 were: 12,356,162 tons, valued at \$29,565,105, as against imports in 1918 of 16,893,427 tons, valued at \$45,642,696. The decrease in bituminous imports in 1919 as compared with 1918 was thus 4,537,265 tons, or 27 per cent.

The bituminous imports in 1919 included: bituminous round, and run-of-mine, 10,127,965 tons, valued at \$24,750,717, or an average of \$2.44 per ton, and bituminous slack, 2,228,197 tons, valued at \$4,814,388, or an average of \$2.16 per ton. The value of the imports during 1918 of bituminous, round and run-of-mine coal averaged \$2.73 per ton, and of bituminous slack, \$2.58 per ton.

The record of the exports of bituminous coal to Canada, as published in the Reports of Trade and Navigation at Washington, differs in some years considerably from the Canadian record, in partial explanation of which it should be noted that the Canadian record represents coal "entered for home consumption." This entry may be deferred several months from the actual time of import, thus causing a difference in the monthly and yearly record.

Furthermore it is understood that the United States record includes a certain amount of coal used for bunkering lake steamers which would not be included as an import into Canada. The United States record shows exports of bituminous coal to Canada during the twelve months ending December 1919, of 11,950,277 short tons, as against 18,134,328 tons in 1918, 18,118,879 tons in 1917, 13,260,181 tons in 1916, 9,356,889 tons in 1915, 10,271,409 tons in 1914, and 15,115,733 tons in 1913.

### Annual Imports of Coal, "Entered for Consumption"

Calendar year	Bituminous round and run of the mine (a)		Anthracite coal and anthracite dust (b)		Bituminous slack such as will pass through 4" screen (c)	
	Short tons	Value	Short tons	Value	Short tons	Value
		\$		\$		\$
1907.....	6,370,152	13,232,445	3,141,873	14,506,129	1,139,256	1,121,949
1908.....	6,025,574	12,516,748	3,160,110	14,478,536	1,111,811	1,355,677
1909.....	5,625,063	11,455,818	3,017,844	13,906,152	1,230,017	1,469,889
1910.....	5,966,466	11,919,341	3,266,235	14,735,062	1,365,281	1,705,598
1911.....	8,905,815	18,407,603	4,020,577	18,794,192	1,632,500	2,090,796
1912.....	8,491,840	16,846,727	4,184,017	20,080,388	1,919,953	2,550,922
1913.....	10,743,473	21,756,658	4,642,057	22,034,839	2,816,423	4,157,622
1914.....	7,776,415	14,954,321	4,435,010	21,241,924	2,509,632	3,605,253
1915.....	6,106,794	7,564,369	4,072,192	18,753,980	2,286,916	2,027,256
1916.....	9,504,552	12,368,679	4,570,815	22,216,363	3,505,236	3,704,624
1917.....	12,407,486	33,712,894	5,320,198	28,109,586	3,129,776	8,739,877
1918.....	13,656,360	37,291,057	4,785,160	26,007,888	3,237,067	8,351,639
1919.....	10,127,965	24,750,717	4,952,675	31,595,694	2,228,197	4,814,388

a) Duty, 53 cents per ton. (b) Coal, anthracite and anthracite coal dust, duty free.  
Duty, 14 cents per ton

The following tables show the monthly imports of bituminous and anthracite coal since 1915.

The United States record of monthly exports to Canada is also included for comparison.

### Monthly Imports of Bituminous Coal into Canada,\* "Entered for Consumption"

In short tons

	1915	1916	1917	1918	1919	1920
January.....	547,772	1,124,918	1,031,719	1,134,493	1,458,240	780,424
February.....	653,016	942,811	760,545	1,460,391	1,064,710	671,212
March.....	547,756	918,206	1,114,958	1,175,076	922,608	1,180,670
April.....	417,133	727,467	1,331,449	986,052	592,853	753,557
May.....	481,908	894,505	893,055	1,541,537	960,491	885,125
June.....	661,569	1,239,882	1,260,652	1,442,412	733,550	924,136
July.....	752,229	1,096,718	1,581,361	1,670,806	1,283,902	1,103,819
August.....	446,162	1,188,822	1,890,923	1,670,397	1,291,041	1,665,171
September.....	680,151	1,287,554	1,567,773	1,604,802	1,203,977	
October.....	900,450	1,314,286	1,582,797	1,545,320	1,355,577	
November.....	967,791	1,156,239	1,773,498	1,439,535	892,248	
December.....	937,773	1,118,380	1,248,532	1,222,606	626,965	
Total.....	8,393,710	13,009,788	15,537,262	16,893,427	12,350,162	

\*Compiled from the Monthly Reports on Trade of Canada, Ottawa.

### Monthly Imports of Anthracite Coal into Canada,\* "Entered for Consumption"

In short tons

	1915	1916	1917	1918	1919	1920
January.....	270,396	295,578	300,836	279,688	399,676	335,908
February.....	213,797	349,347	277,179	246,960	347,866	296,736
March.....	175,813	381,032	436,567	424,030	170,754	439,334
April.....	361,195	194,402	318,782	362,291	209,958	260,122
May.....	477,522	372,264	347,390	465,561	461,701	329,684
June.....	415,344	513,528	551,107	401,450	431,874	473,829
July.....	341,380	513,858	559,993	382,207	534,488	561,567
August.....	346,989	429,699	665,071	461,651	592,550	591,932
September.....	338,272	433,203	633,203	479,284	563,306	
October.....	415,929	385,953	570,771	511,214	413,638	
November.....	370,384	383,103	413,200	364,605	379,439	
December.....	345,471	327,848	346,100	406,219	417,434	
Total.....	4,072,192	4,570,815	5,320,198	4,785,160	4,952,675	

\*Compiled from the Monthly Reports on Trade of Canada, Ottawa.



## Monthly Exports of Bituminous Coal from the United States to Canada\*

In short tons.

	1915	1916	1917	1918	1919	1920
January	396,715	600,616	654,350	519,022	561,023	512,858
February	338,905	605,684	646,008	647,855	500,000	606,222
March	306,203	611,640	884,498	951,196	395,229	716,391
April	426,970	740,865	1,022,171	1,273,972	562,172	940,460
May	600,253	1,467,229	1,569,297	1,978,799	1,318,589	802,427
June	978,628	1,476,453	2,017,989	2,019,816	1,602,430	1,337,019
July	1,138,383	1,457,326	1,555,972	2,098,600	1,498,681	1,886,889
August	1,060,717	1,708,697	2,715,628	2,194,099	1,498,208	2,091,047
September	1,058,176	1,519,550	1,739,580	2,038,673	1,581,406	1,965,514
October	1,224,880	1,196,122	2,416,800	1,859,456	1,622,438	
November	1,062,855	1,023,924	1,504,946	1,550,245	377,038	
December	704,804	852,076	1,391,640	1,011,595	233,062	
Total	9,356,889	13,260,182	18,118,879	18,134,328	11,950,277	

## Monthly Exports of Anthracite Coal from the United States to Canada\*

In short tons.

	1915	1916	1917	1918 (a)	1919 (a)	1920 (a)
January	211,435	288,521	327,838	270,239	412,999	342,797
February	198,202	324,354	285,135	254,597	241,940	305,052
March	140,128	337,814	408,337	445,041	131,942	470,044
April	498,532	237,291	656,731	381,764	319,413	359,361
May	461,976	495,609	480,633	476,123	446,752	310,461
June	394,502	567,764	677,350	424,203	531,233	573,395
July	299,837	432,375	437,493	443,002	546,171	738,186
August	328,516	430,379	760,253	457,177	565,845	622,302
September	310,400	391,873	501,899	495,840	548,557	364,262
October	380,417	374,565	535,715	510,753	485,791	497,718
November	317,583	349,053	320,259	482,013	359,205	
December	316,281	326,776	606,963	327,056	386,850	
Total	3,852,810	4,556,374	6,007,306	4,967,808	4,976,598	

\*Compiled from the Monthly Summary of Foreign Commerce of the United States, Washington, D.C.

(a) Total exports. Exports to Canada not separately stated, but will exceed 95 per cent of total exports.

## Consumption of Coal

The total consumption of coal in Canada estimated on the basis of production, imports and exports was in 1919, 28,863,017 tons, which included 11,611,168 tons of Canadian coal and 17,251,849 tons of imported coal.



Statistics of the annual consumption are given in the following tables:—

### Consumption of Coal, 1915-16-17-18-19

In short tons

	1915	1916	1917	1918	1919
Production	1,767,024	14,483,395	14,046,759	14,977,926	11,681,218
Exports of Canada	1,766,543	2,135,359	1,733,156	1,817,195	2,070,050
Home consumption of coal in Canada	11,500,480	12,348,036	12,313,603	13,160,731	11,611,168
Imports	12,465,902	17,580,603	20,857,460	21,678,587	17,308,817
Exports of production of Canada	56,690	62,783	47,328	67,486	56,988
Canadian consumption of imported coal	12,406,212	17,517,820	20,810,132	21,611,101	17,251,819
Total consumption of coal in Canada	23,906,692	29,865,856	33,123,735	34,771,832	28,863,017

### Annual Consumption of Coal

In short tons

Calendar Year	Canadian		Imported		Total	Per capita
	Short tons	%	Short tons	%		
1886	1,595,950	45.9	1,884,161	54.1	3,480,111	0.758
1887	1,848,365	45.7	2,192,260	54.3	4,040,625	0.871
1888	2,013,925	37.8	3,314,353	62.2	5,328,278	1.137
1889	1,992,988	44.4	2,490,931	55.6	4,483,919	0.946
1890	2,360,196	47.8	2,581,187	52.2	4,941,383	1.061
1891	2,606,490	46.7	2,980,222	53.3	5,586,712	1.153
1892	2,464,012	44.4	3,082,429	55.6	5,546,441	1.133
1893	2,823,187	47.6	3,110,462	52.4	5,933,649	1.198
1894	2,743,376	48.5	2,917,818	51.5	5,661,194	1.130
1895	2,467,109	5.7	2,933,752	54.3	5,400,861	1.066
1896	2,639,055	45.1	3,206,456	54.9	5,845,511	1.140
1897	2,799,977	47.3	3,124,485	52.7	5,924,462	1.143
1898	3,023,079	48.0	3,274,981	52.0	6,298,060	1.200
1899	3,631,882	47.0	4,092,361	53.0	7,724,243	1.454
1900	3,989,542	47.8	4,361,563	52.2	8,351,105	1.661
1901	4,912,664	50.5	4,810,213	49.5	9,722,877	1.810
1902	5,376,413	51.0	5,165,938	49.0	10,542,351	1.927
1903	6,005,735	52.2	5,491,870	47.8	11,507,605	2.055
1904	6,697,183	49.2	6,909,651	50.8	13,606,834	2.346
1905	7,032,661	48.9	7,343,880	51.1	14,376,541	2.362
1906	7,927,560	51.7	7,398,906	48.3	15,326,466	2.425
1907	8,617,352	45.0	10,549,503	55.0	19,166,855	2.947
1908	9,156,478	47.3	10,195,424	52.7	19,351,902	2.820
1909	8,913,376	47.9	9,711,826	52.1	18,625,202	2.682
1910	10,592,103	50.2	10,438,123	49.8	20,970,226	2.960
1911	9,822,749	40.5	14,424,949	59.5	24,247,698	3.384
1912	12,385,696	46.0	14,549,104	54.0	26,934,800	3.596
1913	13,450,158	42.6	18,132,387	57.4	31,582,545	4.071
1914	12,214,403	45.5	14,637,920	54.5	26,852,323	3.325
1915	11,500,480	48.1	12,406,212	51.9	23,906,692	3.015
1916	12,348,036	41.3	17,517,820	58.7	29,865,856	3.669
1917	12,313,603	37.2	20,810,132	62.8	33,123,735	3.992
1918	13,160,731	37.8	21,611,101	62.2	34,771,832	4.047
1919	11,611,168	40.2	17,251,849	59.8	28,863,017	

In connexion with the records of consumption it may be of interest to record the very large percentage of Canadian coal consumption used by railway locomotives. During the twelve months ending June 30, 1919, the tonnage of coal used by locomotives amounted to 9,141,023.

The quantity of coal consumed by railway locomotives in recent years, as compiled from "Railway Statistics," published by the Department of Railways and Canals, is as follows:

### Annual Consumption of Coal by Railway Locomotives

In short tons

Year ending June 30	Anthracite	Bituminous	Total
1911.....	6,444	6,769,903	6,776,347
1912.....	5,374	7,732,938	7,738,312
1913.....	4,662	9,040,963	9,045,625
1914.....	5,271	8,268,186	8,273,457
1915.....	3,691	6,673,845	6,677,536
1916.....	4,899	8,672,455	8,677,354
1917.....	4,900	9,783,524	9,788,424
1918.....	3,283	9,836,623	9,839,906
1919.....	4,430	9,136,593	9,141,023

### Nova Scotia

The production of coal in Nova Scotia in 1919 was 5,720,373 tons, as compared with a production in 1918 of 5,818,562 tons, showing a decrease of 98,189 tons, or 1.7 per cent.

The total sales of coal during 1919 were 4,871,607 tons, of which 4,274,874 tons were sold for consumption in Canada, 12,119 tons for export to the United States, 584,614 tons for export to Newfoundland and other countries.

The total quantity used by producers under colliery boilers, in coke ovens, and in steel plants was 848,766 tons, including 222,269 tons used in making coke, and for other commercial purposes, and 626,497 tons used in the operation of collieries, or by workmen.

A considerable tonnage of coal reported as sold for consumption in Canada is also used in the manufacture of coke, the total coal charged to coke ovens in the province during the year being 699,696 tons.

The Dominion Coal Company has for many years been the principal operator, the total production of this firm's collieries at Cape Breton and at Springhill being 3,837,787 tons, or over 67 per cent of the province's production, and equivalent to over 28 per cent of the total Canadian production. The Nova Scotia Steel and Coal Company produced 590,323 tons, the Acadia Coal Company 456,269 tons, the Inverness Railway and Coal Company 158,271 tons, the Maritime Coal, Railway and Power Company 185,296 tons, and the Intercolonial Coal Mining Company 207,650 tons.

Nova Scotia was the first province in Canada in which coal was mined and up to date has produced more coal than all the other provinces combined. The annual production reached a maximum in 1913, with a total of 7,980,073 tons. During the past three years, however, the production has fallen off nearly 30 per cent. As the war proceeded the loss of experienced miners through enlistment became heavy. The output was reduced and increasing demands for coal for local consumption and for bunkering overseas shipping soon absorbed the available coal that formerly went to the Montreal market.

For a number of years Nova Scotia mines, chiefly those of Cape Breton, had been shipping from 2,000,000 to 2,500,000 tons of coal to Montreal, and other Quebec markets, via the St. Lawrence. During the twelve months ending September, 1919, 386,022 tons of Nova Scotia coal were marketed in Quebec province, as against 150,582 tons in 1918; 339,374 tons in 1917; 1,114,337 tons in 1916, and 2,048,222 tons in 1915.

The quantity of coal marketed within the province increased from 2,467,000 tons in 1914 to 3,226,000 tons in 1917, but has fallen again to 2,814,000 tons in 1919.

The present distribution also shows a larger quantity of coal marketed in New Brunswick and in Newfoundland than before the war. The exports to the United States, which reached 596,000 tons in 1915, have fallen to 85,000 tons in 1919, whilst during the latter year 72,000 tons were shipped to European markets.

# Coal Production by Companies, in Nova Scotia, 1919

In short tons.

	Total Sales	For Coke	Colliery Consumption	Workmen	Production <sup>1</sup>	Stocks	Losses <sup>2</sup>	Output
						Jan 1	Dec 31	
<b>Inverness County—</b>								
Inverness Ry. and Coal Co.	122,104		28,818	7,349	158,271	4,548	601	154,965
Port Hood Collieries, Ltd.	51,643		2,197	8,800	4,606		13	54,669
St. Rose Mine (G. W. Evans)	204		97	92	706	53	7	342
Chimney Corner Mine (S. J. Doucet)	736				23,786	33	2,238	765
Anglo Coal Co., Ltd.	22,919		403	461				26,021
	177,666		31,511	8,722	117,899	4,679	2,949	219,790
<b>Cape Breton County—</b>								
Indian Cove Coal Co., Ltd.	18,445		872	3,680	22,977			22,977
Dominion Coal Co., Ltd.	3,018,990	20,179	291,824	63,336	3,400,299	11,664	50,306	3,458,154
Nova Scotia Steel and Coal Co., Ltd.	341,196	193,306	32,774	23,047	390,723	635	6,657	617,181
Bras d'Or Coal Co., Ltd.	45,352		997	703	47,092	769		46,281
	3,423,983	219,485	326,667	91,746	4,090,681	13,078	56,945	4,144,405
<b>Pictou County—</b>								
Acadia Coal Co., Ltd.	413,800		24,270	18,199	436,269	243	179	436,905
Milford Mining Co.	20,642		2,172		23,414			23,414
Greenwood Coal Co., Ltd.	42,737		2,985	794	46,405	84	63	46,405
Intercolonial Coal Mining Co., Ltd.	174,686	2,784	22,697	7,483	207,669	364	680	207,669
Lanark Engineering Co.	18,762		1,663	203	20,628			20,628
	670,627	2,784	54,387	26,679	734,477	911	842	734,408
<b>Unimberland County—</b>								
Central Coal Co.	1,877		210		2,087	14		2,104
Maritime Coal, Ry. and Power Co., Ltd.	176,135		4,555	4,606	185,906	4,270	648	182,946
Twine Seam Coal Co., Ltd.	6,031		240	200	6,471			6,471
Dominion Coal Co., Ltd. (Springhill)	381,966		63,212	12,260	437,438	2,948	6,161	440,654
Ministie Coal Co., Ltd.	36,914		1,600		38,514			38,500
The Bannerman Coal Co., Ltd.	8,025		330	120	8,445			8,445
The Sterling Coal Co.	6,834		212	22	7,187			7,187
Fundy Mining Co.	651				651			651
Royal Coal Co., Ltd.	405		212	15	405			405
Export Coal Co., Ltd.	493				50			50
	599,331		70,541	17,444	687,916	7,316	6,762	688,961
Total	4,871,607	222,269	492,906	141,301	5,720,373	25,944	67,518	5,884,674

<sup>1</sup>Includes also coal used by producers for steel making and other purposes.

<sup>2</sup>Production is obtained by adding sales and coal used.

<sup>3</sup>Complete records of losses are not furnished by all producers.

# Coal Production by Companies, in Nova Scotia, 1918

In short tons.

	Total Sales	Used		Production	Stocks		
		For coke and consumption	Workings		Jan 1	Dec 31	
<b>Inverness County</b>							
Inverness Ry. and Coal Co., Ltd.	185,042	36,721	7,615	229,359	685	26	18,101
Port Hood Collieries, Ltd.	4,071	454	20	4,086	—	26	4,775
St. Rose Mine Co., W. Evans	216	107	—	343	—	—	343
Chimney Corner Mine, S. J. Doucet	505	—	—	505	—	—	505
<b>Cape Breton County</b>							
Indian Cove Coal Co., Ltd.	180,792	37,284	—	64,912	596	276	14,675
Dominion Coal Co., Ltd.	12,100	71	85	12,254	—	—	12,254
Nova Scotia Steel and Coal Co., Ltd.	3,278,578	418,406	66,136	3,660,050	20,653	11,664	6,645,826
Bras d'Or Coal Co., Ltd.	95,886	129,162	30,078	330,162	1,026	645	56,307
	54,421	1,107	857	56,385	447	—	57,905
	3,440,684	448,651	97,132	4,261,903	29,079	12,990	4,284,815
<b>Pictou County</b>							
Acadia Coal Co., Ltd.	208,562	5,020	14,821	318,344	1,808	24	36,577
Whiffred Mining Co.	17,653	1,663	488	19,806	—	—	19,806
Greenwood Coal Co., Ltd.	52,662	2,662	1,102	56,517	367	84	52,565
Intervale Coal Mining Co., Ltd.	165,191	27,429	7,697	198,872	1,425	283	198,872
	503,500	65,006	24,118	590,199	3,508	93	84,710
<b>Cambuslangh County</b>							
Coastal Coal Co.	1,161	181	34	1,358	—	35	1,358
Maritime Coal Ry. and Power Co., Ltd.	170,667	28,566	4,822	204,054	—	—	204,054
Twiss, Seaton Coal Co., Ltd.	6,021	229	112	6,271	—	—	6,271
Dominion Coal Co., Ltd., Springfield	429,068	67,430	13,126	426,138	9,860	948	426,138
Munroe Coal Co., Ltd.	21,109	4,500	—	25,608	257	—	25,608
Strathcona Coal Mine, A. W. Peggles	19,153	1,126	332	20,605	—	—	20,605
The Sterling Coal Co.	17,405	427	205	18,275	—	47	18,275
Fundy Mining Co.	6,743	91	205	7,039	11	—	7,039
Royal Coal Co., Ltd.	3,115	—	208	4,023	—	—	4,023
Atlantic Coal Co., Ltd.	1,613	—	—	1,613	—	—	1,613
Peninsular Coal Co., Ltd.	17,489	1,799	129	19,409	—	—	19,409
<b>Total</b>	694,824	104,459	19,355	728,648	10,142	768	727,609
	4,758,810	277,881	148,441	5,818,562	49,315	16,364	5,857,790

The sales also coal used by producers for steel making and other purposes.

Production is obtained by adding sales and coal used.

Losses are not furnished by all producers.

# Output, Sales, Colliery Consumption, and Production of Coal in Nova Scotia

Calendar Year	Output	Sales or used	Colliery consumption	Production*	Price per ton, net, 240 lbs.	Value of production
	Tons of 2,000 pounds					
					\$	\$
1785 to 1873				8,056,670	1.75	12,596,800
1874	977,146	849,022	133,062	972,954	1.75	1,520,249
1875	874,005	791,610	82,395	950,615	1.75	1,454,084
1876	794,804	710,312	84,492	881,755	1.75	1,308,091
1877	848,396	709,513	119,702	880,315	1.75	1,375,309
1878	863,075	776,732	99,262	875,994	1.75	1,368,741
1879	882,803	771,250	111,553	860,220	1.75	1,353,409
1880	1,150,035	1,009,218	140,817	1,177,609	1.75	1,840,408
1881	1,259,183	1,159,216	179,844	1,280,056	1.75	2,000,079
1882	1,529,708	1,400,200	129,508	1,524,947	1.75	2,392,730
1883	1,503,350	1,453,226	125,983	1,578,609	1.75	2,496,776
1884	1,556,011	1,413,048	130,781	1,543,829	1.75	2,412,233
1885	1,514,470	1,405,051	142,939	1,547,990	1.75	2,418,735
1886	1,682,924	1,538,500	159,512	1,698,018	1.75	2,653,152
1887	1,871,330	1,702,046	156,550	1,858,596	1.75	2,901,057
1888	1,989,263	1,765,895	176,336	1,942,211	1.75	3,034,735
1889	1,997,032	1,741,720	177,107	1,918,827	1.75	2,998,107
1890	2,229,081	2,000,444	180,589	2,181,033	1.75	3,407,804
1891	2,290,158	2,071,938	195,981	2,267,919	1.75	3,543,624
1892	2,175,913	1,963,286	196,103	2,159,389	1.75	3,174,046
1893	2,489,807	2,214,848	230,076	2,444,924	1.75	3,820,194
1894	2,520,707	2,308,231	219,751	2,527,982	1.75	3,949,970
1895	2,599,727	2,008,270	246,875	2,235,145	1.75	3,476,790
1896	2,537,706	2,202,447	216,132	2,508,579	1.75	3,919,055
1897	2,620,835	2,290,032	203,522	2,493,554	1.75	3,896,179
1898	2,584,175	2,075,461	188,519	2,566,180	1.75	3,004,070
1899	3,209,296	2,950,067	198,555	3,148,821	2.00	5,032,898
1900	3,694,646	3,358,585	204,051	3,623,536	2.50	8,088,250
1901	4,279,557	3,820,462	266,600	4,158,968	1.75	6,496,982
1902	5,292,538	4,756,034	444,102	5,169,316	2.00	9,216,636
1903	5,841,429	5,113,607	539,731	5,653,338	2.00	10,095,246
1904	5,747,823	5,097,949	498,292	5,596,341	2.00	9,993,288
1905	5,821,622	5,167,476	479,107	5,646,583	2.00	10,083,184
1906	6,546,191	5,704,307	510,198	6,220,505	2.00	11,108,044
1907	6,468,563	5,864,406	489,727	6,354,133	2.25	12,764,999
1908	6,806,489	5,851,761	645,600	6,652,529	2.25	13,364,476
1909	5,718,871	5,069,912	585,177	5,652,080	2.25	11,354,643
1910	6,515,162	5,721,681	607,481	6,431,142	2.25	12,919,705
1911	7,125,551	6,358,080	646,340	7,004,420	2.25	14,071,379
1912	7,834,724	7,052,373	731,315	7,783,888	2.50	17,374,750
1913	8,135,104	7,257,006	723,067	7,980,073	2.50	17,812,063
1914	7,448,942	6,637,110	730,814	7,470,924	2.50	16,452,955
1915	7,513,749	6,848,773	634,597	7,469,370	2.50	16,659,308
1916	6,911,995	6,216,439	675,701	6,912,140	3.00	18,544,667
1917	6,345,335	5,599,489	727,602	6,427,091	3.44	19,410,737
1918	5,836,370	5,046,691	801,871	5,818,569	3.06	21,095,470
1919	5,804,674	5,093,876	626,497	5,720,373	4.32	22,078,726
Total				177,539,045		364,047,589

\* This production is obtained by adding sales and colliery consumption.

# Coal Trade by Counties in Nova Scotia, Calendar Years since 1906

In short tons

Calendar Year	Cumberland		Pictou		Cape Breton		Other Counties		Total	
	Raised	Sold*	Raised	Sold*	Raised	Sold*	Raised	Sold*	Raised	Sold*
1906	630,734	506,308	709,496	657,310	4,804,407	4,221,293	312,564	250,396	6,546,191	5,704,307
1907	534,047	445,288	840,565	729,043	4,698,147	4,346,180	395,836	343,895	6,408,593	5,864,406
1908	602,157	530,648	849,802	678,025	4,840,635	4,267,346	452,877	375,743	6,805,489	5,851,701
1909	494,919	403,571	748,869	599,743	4,051,333	3,723,135	398,793	340,063	5,718,871	5,066,912
1910	550,363	288,706	714,846	588,678	5,065,800	4,571,347	414,153	374,950	6,513,162	5,823,681
1911	528,396	436,125	833,956	691,852	5,065,355	4,917,902	347,941	312,201	7,125,531	6,358,080
1912	716,914	595,138	765,678	641,830	6,039,296	5,536,765	312,836	284,780	7,834,724	7,052,573
1913	675,544	555,815	807,177	694,659	6,113,275	5,709,795	329,105	298,507	8,135,104	7,257,066
1914	702,496	571,063	681,556	571,063	5,767,566	5,266,733	296,624	293,669	7,448,042	6,818,773
1915	736,794	620,667	581,226	598,145	5,920,670	5,486,292	275,049	254,252	7,513,739	6,911,995
1916	685,517	578,914	612,611	528,489	5,317,536	4,874,793	290,111	254,732	6,911,995	6,396,439
1917	711,164	603,633	725,992	665,523	4,680,680	4,176,381	227,529	183,732	6,345,335	5,599,489
1918	722,139	604,834	584,721	506,045	4,294,832	3,716,020	234,678	189,792	5,836,370	5,016,691
1919	668,981	599,331	554,408	673,411	4,144,395	3,643,468	219,790	177,666	5,804,674	5,093,636

\*Sales include coal used for making coke and steel





**Number and Classes of Workmen in the Coal Mines of Nova Scotia. Year ended September 30, 1919**

Company	Average days per worked per Month	Average Daily Force				Total Colliers Days	Days of Sick and Repairs	Total Workmen	Total Horses
		Surface	Under-ground	Cutting Coal	Total Colliers Men				
Dominion Coal Co.	23.9	809	3,235	811	4,915	1,409,820	1,772	6,687	480
New Scotia Steel and Coal Co.	22	307	808	492	1,607	424,250	105	1,712	124
Brasfield Coal Company	18	19	19	22	60	19,150	2	92	16
Brasfield Coal Company	20	8	6	27	41	9,840	3	44	6
Anglo Coal Co.	20	16	4	16	66	18,612	4	70	42
Traverse Railway and Coal Company	18	115	260	180	555	118,550	100	715	3
Port Hood Collieries	20	19	30	23	72	17,300	8	80	3
S. J. Hughes Collieries Co. Ltd.	13.5	4	2	3	9	1,450	1	10	1
F. L. Thomas, Trustee, St. Rose	10	1	2	2	5	600		5	
Acadia Coal Company	21	240	408	306	1,154	290,810	61	1,215	92
International Coal Mining Co.	17	117	161	159	437	131,100	36	473	27
Greenwood Coal Company	19.5	28	26	66	120	28,134	4	134	
Alfreder Sutherland, Mfr. Ltd.	21	8	7	24	39	10,150	2	41	
Can. Larkland Railway and Coal Co.	24.3	213	344	237	794	231,530	13	807	40
Maritime Coal, Railway and Power Co.	23.3	91	234	145	470	132,032	10	480	6
Martins Coal Co.	15.2	16	65	35	116	21,158	14	130	1
Twin Seam Coal Co.	20	5	8	6	19	4,560	3	22	
Eastern Coal Co.	6.5	5	4	6	15	1,170	1	17	
Emerson Coal Co.	18	10	10	25	45	9,720	1	46	3
Starling Coal Co.	12.5	12	13	24	49	7,350	1	50	6
Forewick Coal Co.	6	40	9	20	69	4,905	6	75	
Central Coal Co.	23	2	1	8	11	3,065	1	12	
Fundy Coal Co. (Shurwood & Swanson, Trustees)	4.6	4	5	7	16	885	2	18	
		2,140	5,691	2,874	10,714	2,806,571	2,211	12,925	816

### New Brunswick

The production of coal in New Brunswick in 1919 was 179,108 tons, as against 268,212 tons in 1918, showing a decrease of 89,104 tons, or 33 per cent.

Through the courtesy of the operators the department is permitted to publish a record of the production from individual properties, as shown in the accompanying tables:

#### Production of Coal in New Brunswick, 1919

(In short tons.)

	Time in operation	Total sales	*Total for colliery use	Total production
Avon Coal Co., Ltd., Newcastle Creek.....	10 mos.	16,143	1,143	17,286
Coakley, Jer., Minto.....	5 mos.	612		612
Grand Lake Coal Co., Ltd., Minto.....	26 days.	744		744
King, G. H., Chipman.....		9,688	263	9,951
Minto Coal Co., Ltd., Minto.....	290 days.	91,299	2,518	93,817
Northfield Coal Co., Ltd., Minto.....	4 mos.	1,261		1,261
Ridge Coal Co., Ltd., Newcastle Bridge.....	304 days.	5,392	408	5,800
Rothwell Coal Co., Ltd., Rothwell.....	8 mos.	6,255	682	6,937
Sheffield Coal Co., Ltd., Minto.....		15,266	1,550	16,816
Taylor, A. D., Minto.....	233 days.	9,453	560	10,013
Welton Harvey, Minto.....	12 mos.	14,001		14,001
All others.....		1,665	205	1,870
Total New Brunswick.....		171,779	7,329	179,108

Includes consumption under boilers, etc., and coal used by workmen.

#### Production of Coal in New Brunswick, 1918

(In short tons.)

	Days in operation	Total sales	*Total for colliery use	Total production
Avon Coal Co., Ltd., Newcastle Creek.....	299	13,635	1,589	15,224
Coakley, Jer., Minto.....	10 mos.	1,720		1,720
Dean Coal Co., Adamsville.....	4 mos.	477	72	549
Grand Lake Coal Co., Ltd., Minto.....	289	12,991	200	13,191
Kelley Coal Co., Ltd., Minto.....	156	1,302	105	1,407
King, G. H., Chipman.....	12 mos.	15,994	223	16,217
Minto Coal Co., Ltd., Minto.....	310	124,531	2,615	127,146
Northfield Coal Co., Ltd., Minto.....		3,886	80	3,966
Ridge Coal Co., Ltd., Newcastle Bridge.....	12 mos.	1,857	655	2,512
Robinson, A. G., Salmon Harbour.....	2 mos.	162	28	190
Rothwell Coal Co., Ltd., Rothwell.....	305	29,997	2,674	32,671
Sheffield Coal Co., Ltd., Minto.....	147	6,534	694	7,228
Smith & Merrithew, Ltd., Minto.....	10 mos.	4,457		4,457
Welton Harvey, Minto.....	12 mos.	39,922		39,922
All others.....		1,578	234	1,812
Total New Brunswick.....		250,043	9,169	268,212

\*Includes consumption under boilers, etc., and coal used by workmen.

### Annual Production of Coal in New Brunswick

Calendar Year	Short tons	Value	Average per ton	Calendar Year	Short tons	Value	Average per ton
		\$	cts.			\$	cts.
1887.....	10,040	23,807	2 35	1904.....	9,112	18,224	2 00
1888.....	5,730	11,050	1 93	1905.....	29,400	58,800	2 00
1889.....	5,673	11,733	2 07	1906.....	34,076	68,152	2 00
1890.....	7,110	13,850	1 95	1907.....	34,584	77,814	2 25
1891.....	5,422	11,030	2 03	1908.....	60,000	135,000	2 25
1892.....	6,768	9,375	1 39	1909.....	49,029	98,496	2 25
1893.....	6,200	9,837	1 59	1910.....	55,455	110,910	2 00
1894.....	6,469	10,264	1 59	1911.....	55,781	111,562	2 00
1895.....	9,500	14,250	1 50	1912.....	44,780	89,560	2 00
1896.....	7,500	11,250	1 50	1913.....	70,311	166,637	2 37
1897.....	6,000	9,000	1 50	1914.....	98,049	241,075	2 46
1898.....	6,160	9,240	1 50	1915.....	127,391	309,612	2 43
1899.....	10,528	15,792	1 50	1916.....	143,540	383,016	2 69
1900.....	10,000	15,000	1 50	1917.....	189,095	708,010	3 74
1901.....	17,630	51,857	2 94	1918.....	268,212	1,331,710	4 97
1902.....	18,795	39,680	2 11	1919.....	179,108	794,761	4 42
1903.....	16,000	40,000	2 50				
				Total.....	1,603,443	5,013,154	

The coal-producing areas include the Grand Lake coal-fields in Queens and Sunbury counties, and the Beersville area in Carleton county. In the Grand Lake area the coal seams, which vary in thickness from 20 to 32 inches, are found at a depth of from 30 to 60 feet below the surface.

### Saskatchewan

The coal deposits of Saskatchewan furnish coal of the lignite variety only, and the production in 1919 from 64 collieries was 380,169 tons, valued at \$820,522, as compared with 346,847 tons, valued at \$722,148 in 1918, an increase of 33,322 tons, or 9.6 per cent.

The 1919 production included 354,399 tons of coal sold and 25,770 tons used by producers for colliery consumption, by workmen, or in brick-making.

The output of coal comes chiefly from the vicinity of Estevan, located on the Souris river, near the southeastern corner of the province. Coal deposits exist for 75 or 100 miles in a northwest-southeast direction along the Souris river, on Big Muddy creek, draining Willowbunch lake and on the south branch of the Saskatchewan river, about 100 miles southwest of Saskatoon.

The annual production and the production by the principal operators in 1919 and 1918 is shown in the following tables:-

### Production of Coal in Saskatchewan in 1919, by Principal Operators

(In short tons)

Name of Company	Time in operation	Total sales	Total for colliery use*	Total production
Anderson, Niels, Estevan.....	138 days	1,615		1,615
Bienfait Commercial Co., Ltd., Bienfait.....	12 mos.	40,079	1,661	11,740
Bienfait Mine (The) Bienfait.....	12 mos.	65,992	2,487	68,479
Crescent Collieries, Ltd.....	7 mos.	11,944	630	12,574
Eidsness Bros., Gladmar.....		1,812		1,812
Estevan Coal and Brick Co., Ltd., Estevan.....	283 days	10,450	152	10,602
Heuvel, Henry V., Hart.....	5 mos.	1,168		1,168
Inter-Provincial Coal Co., Ltd., Roche Percée.....	7 mos.	2,315	36	2,351
Dempsey, Wm., Shaunavon.....	2 mos.	3,180		3,180
McNeil & Brooks, Estevan.....	12 mos.	1,456		1,456
Manitoba and Saskatchewan Coal Co., Ltd., Estevan.....	201 days	61,183	5,959	67,142
Nicholson, H., Estevan.....	259 days	7,000	124	7,124
Parkinson, Geo., Estevan.....	12 mos.	4,419		4,419
Salaba, Jas.....		1,947	30	1,977
Shand Coal, Brick and Power Co., Ltd., Shand.....	12 mos.	19,455	2,340	21,795
Siddall, Edwin.....	10 mos.	1,016		1,016
Western Dominion Collieries, Ltd., Taylorton.....	213 days	109,910	5,577	115,487
Hamilton, H. A.....	76 days	1,340		1,340
All other operators (46).....		8,118	6,774	14,892
<b>Total Saskatchewan.....</b>		<b>354,399</b>	<b>25,770</b>	<b>380,169</b>

\*Includes consumption under boilers, etc., and coal used by workmen.

### Production of Coal in Saskatchewan in 1918, by Principal Operators

(In short tons.)

Name of Operator	Days in operation	Total sales	Total for colliery use*	Total production
Anderson, Niels, Estevan.....	116	1,041		1,041
Bienfait Commercial Co., Ltd., Bienfait.....	282	18,421	840	19,261
Bienfait Mine (The) Bienfait.....	244	63,473	2,449	65,922
Eidsness Bros., Gladmar.....	172	1,285		1,285
Estevan Coal and Brick Co., Ltd., Estevan.....	281	7,040	3,914	10,954
Heuvel, Henry V., Hart.....	12 mos.	1,521		1,521
Inter-Provincial Coal Co., Ltd., Roche Percée.....	297	4,407	80	4,487
Lilja & Dempsey, Shaunavon.....	257	2,261		2,261
McNeil & Rooks, Estevan.....		1,174	75	1,249
Manitoba & Saskatchewan Coal Co., Ltd., Estevan.....	227	69,628	5,741	75,369
Nicholson, H., Estevan.....	213	2,282		2,282
Parkinson, Geo., Estevan.....	12 mos.	3,660		3,660
Saskatchewan Colliery Co., Ltd., Roche Percée.....	6 mos.	2,500	100	2,600
Saskatchewan Coal, Brick & Power Co., Ltd., Shand.....	266	30,409	2,200	32,609
Western Dominion Collieries, Ltd., Taylorton.....	235	98,448	6,386	104,834
Wilson, Alex., Taylorton.....	3 mos.	1,364	25	1,389
All other operators (51).....		15,747	376	16,123
<b>Total Saskatchewan.....</b>		<b>324,661</b>	<b>22,186</b>	<b>346,847</b>

\*Includes consumption under boilers, etc., and coal used by workmen

## Annual Production of Coal in Saskatchewan

Calendar Year	Short tons	Value	Average per ton	Calendar Year	Short tons	Value	Average per ton
		\$	\$ cts			\$	\$ cts
1887.....	(a) 400	800	2 00	1906.....	108,398	164,146	1 51
1890.....	200	200	1 00	1907.....	151,232	252,437	1 67
1891.....				1908.....	150,556	253,790	1 69
1892.....	5,400	9,325	1 73	1909.....	192,125	296,339	1 54
1893.....	8,325	12,485	1 50	1910.....	181,156	293,923	1 62
1894.....	(b) 15,051	15,153	1 01	1911.....	206,779	347,248	1 68
1895.....	15,769	31,538	2 00	1912.....	225,342	368,135	1 63
1896.....	16,706	25,059	1 50	1913.....	212,897	358,192	1 68
1897.....	25,000	37,500	1 50	1914.....	232,299	374,245	1 61
1898.....	25,000	37,500	1 50	1915.....	240,197	365,246	1 52
1899.....	25,000	37,500	1 50	1916.....	281,300	441,836	1 57
1900.....	40,500	60,750	1 50	1917.....	355,445	662,451	1 86
1901.....	45,000	72,000	1 60	1918.....	346,847	722,148	2 08
1902.....	70,400	112,640	1 52	1919.....	380,169	820,522	2 158
1903.....	116,703	169,618	1 45				
1904.....	124,885	187,021	1 50	Total.....	3,906,587	6,682,081	
1905.....	107,596	152,334	1 42				

(a) From Turtle Mountain district, Manitoba.

(b) Including a small quantity from the Turtle Mountain district, Manitoba.

**Lignite Utilization Board of Canada.**—During 1919 the Board continued the experimental investigations on the carbonizing and briquetting of Saskatchewan lignites and before the end of the year were sufficiently satisfied with the commercial feasibility of the project to prepare designs for a commercial plant and to arrange for the placing of contracts for a part of the equipment.

On September 1, 1920, the Board issued a special report to the Western Boards of Trade on the progress that had been made in its operations which included the following:—

## EXPERIMENTAL PROGRAMME.

As previously announced the Board determined practically at the inception of its work to await the outcome of its experimental programme before committing itself to the investment of large sums of money in capital equipment which might afterwards prove unsuitable for the purpose intended. Having adopted this point of view it became increasingly evident during the summer of 1919 that the Board's future work and indeed the successful solution of the whole problem of the commercial briquetting of lignites, were absolutely dependent upon the result of the experimental programme prosecuted in Ottawa during the months of June, July, August and September, 1919. At the same time the Board wishes to record its great appreciation of the co-operation and assistance of the Mines Branch, Department of Mines.

It was clearly seen that the two most important items of research facing the Board were those of (a) carbonizing and (b) briquetting.

**(a) Carbonizing.** As mentioned in the previous report, the Board was forced reluctantly to the opinion that no commercial carbonization of lignite had ever been undertaken and thereupon set itself to devise a type of apparatus that would carbonize lignite under commercial conditions. This was successfully accomplished and during the months of July, August, September and October, experimental runs were made on the carbonizer in Ottawa. The net result of the experiments was that the board became convinced that the problem had practically been solved. This fact enabled the chairman to announce at the public meeting of the Board held in Winnipeg in October, 1919, that the board had decided to proceed with the erection of a commercial plant. Patents have been applied for on the design of the carbonizer in Canada, United States, Italy and Austria, and the Board believes that with the passage of time the carbonizer will prove a great value to the lignite industry in general.

**(b) Briquetting.** The difficulties confronting the Board on the question of briquetting were not so large as those of carbonizing, and yet the economic aspects were serious. It became apparent that the published results of briquetting experiments conducted by other investigators on anthracite were not at all applicable to the briquetting of carbonized lignite. As an example of this fact it may be noted that to produce a good briquette from carbonized lignite requires almost double the quantity of binder necessary to make a correspondingly good briquette from anthracite fines. This condition made it essential that the Board should know beyond peradventure the minimum amount of binder necessary to produce the first quality briquette in order to judge of the future cost of such a product. Owing to the almost complete absence of native binding material in the West and to their consequent high cost when imported, it became essential to cut down to the utmost the quantity of binder used.

During the progress of the Board's investigations the following substances have been tried as binding agents:

Coal tar pitches  
Hard wood tar pitches  
Lignite tars  
Sulphite liquor pitches.  
Asphalts  
Petroleum pitches  
Cement.  
Resins.  
Starches.  
Flour and flour screenings.  
Water glass  
Waste straw jelly, etc.

"Fairly satisfactory briquettes have been made with almost all of the above and very good briquettes with some of them. In addition all sorts of combinations of the foregoing materials have been tried and as a result the Board feels after consideration of all factors that for the present the best briquette will be a straight coal tar pitch briquette or one made by substituting flour screenings for some of the coal tar pitch.

"The question of smokiness has been one of the important considerations of the Board, and the conclusion has been reached that in the meantime it is better to get a good briquette (physically) on the market than to delay the consummation of the Board's work by a further experimental programme on secondary heat treatments of coking devices. In any event the substitution of some parts of flour for coal tar pitch has a marked effect in reducing the total quantity of smoke. The Board also feels that it is better to get any reasonable lignite briquette on the market at the very earliest moment and afterwards attempt to improve its quality as regards smokiness.

The foregoing brief analysis of experimental programme will indicate to the reader the net result as far as the two principal objectives are concerned.

#### SITE.

"When the decision had been reached to proceed with the erection of its main plant the Board set itself to choose a satisfactory site, and made a careful examination of all features affecting the situation. As a result the Board decided to place the plant at a point about midway between the mines of the Manitoba and Saskatchewan Coal Company and of the Western Dominion Collieries. The advantages of such a position were:

- i. An assured supply of raw material suitable for the Board's needs irrespective of weather conditions.
- ii. An ample supply of water suitable for the Board's purposes.

"After a long series of negotiations an agreement has been drawn up between the two mining companies and the Board by which the interests of the public are fully protected.

#### GENERAL PROGRAMME.

"The design of the plant was next completed, and competitive tenders called for, for its erection. The contract was awarded to Messrs. Smith Bros. & Wilson of Regina, and in spite of many adverse circumstances, good progress has been made. Owing, however, to extremely slow deliveries of material the Board wishes to record the fact that it will be quite impossible to have briquettes on the market by October, 1920. As an example of the difficulties the Board is facing, we have been in receipt of quotations for the supply of material with deliveries of from 12 to 32 weeks. This unprecedented situation has been the determining factor in the serious delay of the Board's programme.

#### PRESENT SITUATION

"To date the Board has let contracts for the supply of all buildings and equipment, with the exception of water supply and drainage, carbonizers, piping and housing. Plans and specifications for the water supply and drainage are now ready and bids are to be returned to the Board on or before September 14th. Plans and specifications for the carbonizers will be ready to distribute to the public on September 13th. The piping layouts are being prepared at the present time in the Board's offices. Housing plans were deferred for some little time awaiting the settlement of the financial side of the question. The whole question of housing seems, however, to be now arranged, and the drawings and specifications are being hurried to completion."

#### Alberta

Coal production in this province includes a small tonnage of semi-anthracite from the Bankhead mine at Banff, bituminous coals of excellent quality as well as a considerable tonnage of lignite coal.

In 1919 bituminous coal contributed 46.5 per cent of the total production, lignite 51.3 per cent, and semi-anthracite 2.2 per cent.

The total production of coal in Alberta in 1919 was 4,964,535 tons, valued at \$18,294,495, or an average of \$3.69 per ton, as compared with a production of 5,972,816 tons, valued at \$20,537,287, or an average of \$3.44 per ton in 1918.

There are many small operators in the province, the number reporting production in 1919 being 255. In 1919 there were 60 companies reporting a production in excess of 10,000 tons, and the aggregate production by these firms was 93.6 per cent of the total for the province. Thirteen mines reported a production exceeding 100,000 tons each, the largest operators being the West Canadian Collieries, Limited, with 537,271 tons from Bellevue and Greenhill collieries; the Canadian Pacific Railway, with a total of 397,487 tons from Bankhead, Lethbridge, and Taber; the North American Collieries, Limited, with 401,632 tons from Lovettville, Coalhurst, Evansburg, Dodds, and Drumheller; the Brazeau Collieries, Limited, with 282,544 tons from Nordegg; the Hillcrest Collieries, Limited, with 239,305 tons, and the Canmore Coal Company, with 201,748 tons.

Of the total production 4,577,236 tons were reported as sales, including 4,455,972 tons sold for consumption in Canada; 121,264 tons sold for export to the United States; 387,299 tons were used by producers, including coal charged to coke ovens, used for colliery operations, used for manufacture of briquettes, and used by workmen.

Alberta reached its highest production in 1918. The falling off of over 1,000,000 tons in 1919 is ascribed by the Chief Inspector of Mines for the province, in part to the accumulation at the end of 1918 of unusually large stocks in the hands of the trade or consumers. It will be noted also that less coal was shipped to points outside the province during the year 1919 than during the previous year. That portion of central Canada comprising the provinces of Saskatchewan, Manitoba, and Ontario west of the head of the Lakes, has been supplied annually with from 2,000,000 to 2,500,000 tons of coal imported from the United States. Restrictions on this supply during 1918 necessitated a larger consumption within the territory of Alberta coal. No doubt an effort will be made on the part of the Alberta producers to secure and retain an increasing proportion of this market. The maximum monthly production in Alberta shows a capacity of the mines of this province with present equipment, to produce at the rate of from 9,000,000 to 10,000,000 tons per annum.

The monthly production of anthracite, bituminous, and lignite coal during 1919, and the production of each of the larger collieries during 1919 and 1918 are shown in the following tables:—

# Monthly Production of Coal in Alberta, 1919

(In short tons.)

District	(Reporting)	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Year
Barf., .....	1	12,730	11,645	13,414	13,678	76	39	750	2,611	12,278	14,673	14,907	15,427	111,124
Crowsnest .....	6	137,959	130,329	143,143	99,868	94,337	829	1,259	11,336	108,145	152,480	149,069	146,445	1,175,565
Canmore .....	2	22,997	22,313	24,032	20,051	13,738	950	900	4,943	19,853	24,618	25,171	21,927	201,808
Bracegirdle .....	3	38,974	33,509	38,717	30,116	28,218	1,932	2,767	2,807	31,554	34,781	30,778	34,773	308,971
Jasper Park .....	2	23,580	21,735	21,245	20,950	3,321	108	62	62	2,287	9,534	22,400	20,657	145,068
Yellowhead Pass .....	8	42,832	40,268	39,747	30,712	21,181	305	1,959	13,114	37,896	44,992	45,008	47,114	391,440
Mountain Park .....	1	16,557	17,277	11,493	13,124	8,754	182	279	744	8,942	12,691	11,527	7,204	112,904
Total Bituminous .....	22	282,908	265,431	278,377	214,830	109,549	4,328	7,226	33,006	208,657	279,096	284,578	278,402	2,306,688
Pincher Creek .....	6	346	226	297	90	60	131	159	185	317	83,357	84,190	1,022	4,119
Leithridge .....	15	53,498	29,815	58,116	43,956	40,605	4,015	8,668	16,417	64,892	146,144	146,144	91,838	579,027
Macraeth .....	3	198	97	113	35	17	80	127	124	247	1,194	98	1,111	1,496
Milk River .....	16	444	265	257	115	127	151	129	339	790	1,194	98	1,111	6,011
Falher .....	10	5,527	3,387	5,728	1,994	2,403	1,146	1,997	5,628	12,925	18,141	19,419	2,768	101,163
Bow Island .....	11	406	291	459	126	173	343	307	388	743	1,767	1,906	2,926	5,931
Medicine Hat .....	3	58	88	825	37	357	61	91	1,199	2,341	3,988	1,857	1,976	20,195
Aldersyde .....	4	628	376	211	211	240	298	367	424	941	1,435	1,157	1,176	7,265
High River .....	4	55	26	32	13	13	298	367	424	941	1,435	1,157	1,176	7,265
Drumheller .....	30	47,189	34,141	52,891	11,843	13,142	2,016	6,096	43,438	121,023	143,119	153,447	161,198	792,551
Big Valley .....	4	5,375	1,921	2,642	1,214	2,054	2,000	173	2,699	3,754	4,856	5,495	6,166	34,839
Brooks .....	6	732	618	776	150	272	361	392	406	896	1,727	1,484	1,144	8,948
Haana .....	19	1,908	1,416	2,360	406	667	1,171	1,218	818	1,738	4,622	4,046	5,190	25,640
Lacombe .....	13	1,251	1,048	1,290	138	183	233	190	243	629	1,814	3,172	2,771	13,476
Trochu .....	11	1,198	1,486	1,866	141	293	441	717	711	743	1,718	2,710	3,014	15,058
Three Hills .....	8	1,249	999	2,794	333	499	188	1,000	1,605	2,282	3,925	4,919	5,555	25,345
Carbon .....	4	359	271	359	26	30	245	314	209	274	514	669	663	3,742
Battle River .....	17	1,741	1,992	1,471	0	10	30	30	30	197	1,080	1,034	2,782	11,209
Canmore .....	7	5,401	5,376	6,330	1,891	1,896	5,716	6,416	6,710	6,820	9,820	12,757	13,214	82,410
Trinidad .....	5	5,823	5,298	5,116	2,549	3,329	4,339	4,399	4,775	7,794	10,024	18,827	22,631	95,011
Clover Bar .....	9	21,322	19,744	26,071	9,196	11,493	8,835	10,635	18,457	28,976	40,352	45,804	50,822	292,005
Edmonton .....	8	10,150	9,177	9,624	3,461	1,092	1,185	475	1,635	7,371	13,096	18,584	19,200	93,811
Namook .....	5	1,830	1,403	942	245	267	267	16	16	335	1,162	1,066	2,440	9,855
Cardiff .....	3	29,438	20,544	24,526	8,821	5,633	2,335	4,210	218	6,381	22,821	26,916	30,440	175,741
Wabunan .....	3	834	3,555	4,703	1,871	1,340	2,335	3,665	3,965	3,965	4,719	3,965	4,714	32,923
Pembina .....	1	6,633	6,034	4,862	7,503	9,061	4,694	6,397	7,161	10,224	15,043	14,245	14,134	106,196
Peace River .....	1	136	255	255	255	255	255	255	255	255	255	255	255	391
Total Lignite .....	232	204,410	147,543	210,994	96,615	95,439	37,794	55,826	117,663	286,384	390,477	433,345	470,166	2,540,823
Grand Total .....	255	500,046	424,621	502,765	325,124	265,064	42,161	63,802	153,247	595,041	684,244	711,830	764,090	4,964,535



# Monthly Production of Coal in Alberta, 1918

(In short tons.)

Province	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Year
<b>Alberta</b>													
Armstrong	1	11,358	12,753	12,773	10,957	8,752	9,076	9,006	8,610	8,211	4,937	6,527	107,411
Calmar	5	128,554	133,259	148,406	142,178	149,113	147,071	138,056	111,341	121,726	84,466	109,755	1,074,300
Cardston	1	23,969	24,607	25,241	26,219	27,051	25,477	22,930	23,981	24,780	21,471	19,755	237,944
Calmar	3	28,354	24,065	25,407	32,445	33,397	32,729	36,080	41,760	38,757	37,258	24,760	379,744
Calmar	2	24,960	22,851	28,065	30,365	27,068	19,352	20,100	22,754	17,711	17,750	15,529	238,000
Calmar	6	21,547	16,061	19,334	21,262	24,302	29,175	33,611	34,438	39,437	26,006	36,631	308,000
Calmar	1	11,817	13,089	13,203	12,256	11,830	10,639	10,573	8,849	12,608	8,757	13,305	137,411
<b>Calmar</b>													
Calmar	18	240,187	224,421	244,819	270,943	260,778	269,346	270,147	264,216	263,843	189,134	214,411	2,674,411
<b>Calmar</b>													
Calmar	1	449	478	381	305	186	237	357	291	502	358	19	1,074
Calmar	1	81,012	76,945	71,001	59,894	55,814	60,063	66,103	70,933	64,533	57,952	71,100	808,718
Calmar	17	617	500	387	246	130	364	379	402	600	156	114	1,074
Calmar	12	21,808	18,947	7,007	1,892	5,228	11,378	15,825	17,512	16,925	11,366	17,422	162,589
Calmar	14	1,695	531	391	108	138	131	167	365	134	1,006	64	1,074
Calmar	9	2,564	1,027	424	164	208	725	1,359	1,002	1,931	1,200	1,688	1,074
Calmar	4	703	611	552	297	330	186	409	679	1,200	1,008	1,008	1,074
Calmar	28	89,888	14,197	28,793	7,710	191	25	119,759	122,987	99,775	79,134	75,000	1,074
Calmar	1	4,328	3,512	3,105	1,198	1,971	2,191	2,208	2,179	2,306	1,758	4,078	1,074
Calmar	1	1,083	979	771	472	466	466	1,016	471	1,274	2,269	1,108	1,074
Calmar	26	3,264	2,811	1,957	526	1,841	1,407	1,621	1,674	2,164	4,800	3,087	1,074
Calmar	16	2,595	2,065	1,599	288	497	299	304	153	1,531	1,541	1,074	1,074
Calmar	13	3,556	2,813	831	128	202	659	816	1,000	1,000	1,541	1,074	1,074
Calmar	6	3,308	3,311	1,076	395	1,136	2,166	2,111	2,465	1,926	2,709	2,709	1,074
Calmar	13	5,215	612	965	121	343	409	445	471	1,000	1,000	1,074	1,074
Calmar	17	2,215	2,382	725	55	55	27	27	47	1,000	1,000	1,074	1,074
Calmar	10	10,688	8,051	3,711	1,647	1,470	1,800	2,349	2,349	1,000	1,000	1,074	1,074
Calmar	9	13,974	7,524	4,038	2,236	2,431	2,783	3,661	4,081	3,661	2,000	1,074	1,074
Calmar	9	42,376	30,008	16,006	7,042	9,835	18,777	20,290	17,701	12,437	23,544	23,544	1,074
Calmar	9	17,845	13,596	7,492	4,894	4,618	7,135	8,215	4,647	6,079	9,844	10,607	1,074
Calmar	4	2,797	2,885	1,183	793	871	919	1,225	1,200	1,200	1,111	1,111	1,074
Calmar	3	18,165	27,094	13,603	9,962	11,252	17,131	14,128	13,153	21,417	24,893	17,444	1,074
Calmar	3	2,276	1,370	487	1,487	1,253	1,098	1,098	1,098	1,098	1,098	1,098	1,074
Calmar	1	13,777	8,629	2,828	1,901	6,893	8,444	6,531	10,231	14,170	10,314	1,074	1,074
<b>Calmar</b>													
Calmar	242	458,894	452,593	469,899	463,115	447,106	433,891	471,504	479,211	464,766	283,440	250,296	5,744,411
<b>Calmar</b>													
Calmar	260	610,496	498,718	427,251	386,831	418,811	503,312	559,781	558,741	557,363	555,572	444,111	5,744,411

# Production of Coal in Alberta, in 1919, by Principal Collieries.

(In short tons)

Name of Company, and Mine address	Time operation	Total sales	Total colliery consumption	Total production
Alberta Black Coal Co., Ltd., Drumheller	183 days	77,386	1,155	81,541
Alberta Coal Mining Co., Ltd., (The) Cardiff	175 "	54,740	2,927	57,667
Avon Coal Co., Ltd., Drumheller	180 "	47,198	1,655	50,853
Bayview Coal Co., Cardiff	8 mos	40,789	1,130	42,217
Beckwith Collieries, Ltd., Roseburg	195 days	11,857	1,399	13,253
Big Valley Coal Co., Big Valley	11 "	30,061	645	31,306
Brazee Collieries, Ltd., Notonage	10 "	23,698	5,846	282,544
Brookdale Collieries, Ltd., Lovettville	89 "	12,815	104	13,219
Bush Mine Coal Co., Beverly	181 "	18,441	1,230	49,671
Cadomin Coal Co., Ltd., Coalingwood	225 "	157,850	1,165	159,015
Canada West Coal Co., Ltd., Taber	143 "	39,833	12,492	52,325
Canadian Pacific Railway Blackhead Mine		19,156	19,156	111,324
Canter Mines, Lethbridge	196 days	141,454	13,716	255,170
Cannore Coal Co., Ltd., Cannore	10 "	184,728	1,020	201,748
Cardiff Collieries, Ltd., Cardiff	1004 "	70,802	5,051	75,853
Chinook Coal Co., Ltd., Commerson	63 "	61,253	16,990	78,243
City of Lethbridge Coal Mine, Lethbridge	74 "	11,814		11,844
Clover Bar Coal Mine Co., Ltd., Clover Bar	177 days	13,583	1,984	15,567
Clover Coal Co., Ltd., (The) Lethbridge	200 "	92,626	968	23,594
Drum Coal Co., Ltd., Dinant	13 "	39,657	36	39,696
Drumheller Land Co., (The) Drumheller	178 "	29,587	2,880	32,467
Edmonton Collieries, Ltd., Edmonton	240 "	18,210		18,216
Edmonton Coal Co., Ltd., Three Hills	242 "	16,611	2,032	18,643
Federal Coals, Ltd., Lethbridge	270 "	22,511	1,76	23,867
Fraser-McKay Collieries, Ltd., Clover Bar	90 "	21,753	1,85	22,628
Great West Coal Co., Ltd., (The) Clover Bar	953 "	86,927	6,980	93,916
Great West Coal Co., (Star Mine), Aerial	157 "	33,153	941	34,094
Hamilton Coal Co., Wayne	9 mos	15,309	530	15,839
Hillcrest Collieries, Ltd., Hillcrest	222 days	226,463	12,842	239,305
Humberstone Coal Co., Beverly	194 "	57,201	5,932	63,133
Hy-Grade Coal Co., Drumheller	219 "	39,858	226	40,084
International Coal & Coke Co., Ltd., Coleman	180 "	158,240	15,432	173,672
Jasper Park Collieries, Ltd., Jasper	158 "	41,106	1,702	44,808
Jewell Collieries, Ltd., Wayne	134 "	20,256	528	20,784
Lakeside Coals, Ltd., Wabamun	216 "	31,328	1,580	32,917
Marcus Collieries, Ltd., Clover Bar	265 "	21,996	1,684	23,680
McGillivray Creek Coal & Coke Co., Ltd., Coleman	212 "	202,521	8,357	210,878
McPeak, P. J., Edmonton	222 "	17,539	1,688	19,227
Midland Collieries, Ltd., Midlandvale	163 "	58,800	4,625	63,425
Mountain Park Coal Co., Ltd., Mountain Park	219 "	103,848	9,116	112,964
Newcastle Coal Co., Ltd., Drumheller	126 "	47,805	1,245	49,050
North American Collieries, Ltd. Pacific Pass, Lovettville	2173 "	72,008	8,430	80,138
Pembina, Evansburg	250 "	98,275	7,921	106,196
Royal, Dodds	9 mos	13,413		13,413
Monarch, Drumheller	119 days	32,953	3,154	36,107
Lethbridge, Coalhurst (Kipp)	187 "	150,849	14,929	165,778
Oliphant-Munson Collieries, Ltd., Oliphant Mines		88,703	985	89,688
Ottewell Coal Co., Ltd., Clover Bar	280 days	11,000	200	11,200
Premier Coal Co., Ltd., Drumheller	5 mos	24,119	738	24,857
Redcliff Brick and Coal Co., Redcliff	180 days	15,674		15,674
Royal Collieries, Ltd., Taber	171 "	22,992	1,536	24,528
Rock Springs Coal and Brick Co., Ltd., Elean	174 "	13,283	1,943	15,226
Rosedale Coal and Clay Products Co., Ltd., Elean	166 "	75,947	1,946	77,893
Rose Deer Coal Mining Co., Ltd., Wayne	151 "	75,200	4,624	79,824
Round Hill Collieries, Ltd., Roundhill	243 "	20,350	175	20,525
Saunders Creek Collieries, Ltd., Saunders	264 "	20,330	1,004	21,334
Scranton Coal Co., Drumheller	165 "	44,074	2,467	46,541
Spicer Coal Co., Ltd., Dinant	171 "	16,950	446	17,396
Tofield Coal Co., Ltd., Tofield	249 "	52,763	800	53,563
Twin City Coal Co., Ltd., Edmonton South	174 "	30,819	5,072	35,891
West Canadian Collieries Bellevue (Greenhill)	2094 "	290,094	12,690	302,784
Western Commercial Co., Ltd., Wayne	2014 "	228,815	5,672	234,487
Western Gem Mining Co., Ltd., Drumheller	131 "	57,432	4,260	61,692
Yellowhead Coal Co., Ltd., Coalspur	181 "	47,421	1,500	48,921
	7 mos	15,288	1,078	16,366
Total 660		4,268,038	378,497	4,646,535
All other operators (195)		309,198	8,802	318,000
Total, Alberta		4,577,236	387,299	4,964,535

a) Includes coal used in the manufacture of briquettes, a large portion having been lifted from waste heap

## Production of Coal in Alberta, in 1918, by Principal Collieries

In thousands of tons.

Name of Colliery and Mine, etc.	1917 Production	1918 Production	1918 Production Consumption	1918 Production Surplus
Alberta Block Coal Co., Ltd., Drumheller	15	8,145	1,475	8,710
Alberta Coal Mining Co., Ltd., (The) Calgary	4	68,500	1,000	71,500
Atlas Coal Mining Co., Ltd., Drumheller	100	4,700	2,975	4,700
Big Valley Collieries, Big Valley	85	29,000	900	30,000
Banner Coal Co., Ltd., Cardiff	100	20,000	2,100	27,000
Blue Diamond Coal Co., Ltd., Brule Mine	25	184,000	50	188,000
Braceau Collieries, Ltd., Nordogg	75	50,000	6,000	55,000
Bush Mine Coal Co., Beverly	50	5,440	1,100	7,000
Cadomin Coal Co., Ltd., Coalspur	200	100,000	1,000	100,000
Canada West Coal Co., Ltd., Taber	115	80,000	17,000	100,000
Canadian Pacific Railway				
Bankhead Mine	34	21,000	84,000	115,000
Calt No. 3, Lethbridge	208	91,700	14,500	106,000
Calt No. 6, Lethbridge	30	20,000	24,000	254,000
Cannore Coal Co., Ltd., Cannore	288	608,000	16,000	274,000
Cardiff Collieries, Ltd., Cardiff	200	102,000	8,000	110,000
Chinook Coal Co., Ltd., Commerce	205	85,000	19,000	105,000
City of Lethbridge Coal Mine, Lethbridge	75	10,000	12,000	12,000
Clover Bar Coal Co., Ltd., Clover Bar	200	15,000	2,000	15,000
Dawson Coal Co., Ltd., The Edmonton	150	16,000	2,000	18,000
Dobell Coal Co., Ltd., The Tofield	280	30,000	900	31,000
Drumheller Land Co., (The) Drumheller	224	45,000	2,800	48,000
Ellis Coal Co., Ltd., Three Hills	100	20,000	1,800	21,000
Edmonton Collieries, Ltd., Clover Bar	280	11,800	3,200	12,000
Federal Coals, Limited, Lethbridge	175	5,000	1,200	28,000
Franco-Canadian Collieries, Ltd., Frank	110	5,000	7,000	44,000
Fraser-MacKay Collieries, Ltd., Clover Bar	247	15,000	1,000	13,000
Great West Coal Co., Ltd., (The) Clover Bar	250	60,000	5,000	71,000
Great West Coal Co., Ltd., Aerial, (Star mine)	220	45,000	1,000	46,000
Hamilton Coal Co., Ltd., Wayne		15,000	500	15,000
Hillcrest Collieries, Ltd., Hillcrest	200	240,000	12,000	250,000
Humberstone Coal Co., Beverly	200	85,000	9,000	94,000
International Coal and Coke Co., Ltd., Coleman	300	178,000	6,000	252,000
Jasper Park Collieries				
Jasper Mine	200	67,000	5,000	72,000
Miette Mine	205	24,000	150	23,000
Keith and Fulton Coal Co., Clover bar	171	10,000	10,000	10,000
Lakeside Coals Limited, Wabamun	218	17,000	900	18,000
McGillivray Ck. Coal and Coke Co., Ltd., Coleman	206	268,000	9,000	277,000
McPeak, P. J., Ltd., Edmonton	257	10,000	2,000	22,000
Midland Collieries, Ltd., Midlandvale	210	73,000	4,000	77,000
Mountain Park Coal Co., Ltd., Mountain Park	200	126,000	10,000	137,000
Newcastle Coal Co., Ltd., Drumheller	185	52,000	1,000	54,000
North American Collieries, Ltd.				
Pacific Pass Colliery, Lovettville	204	73,000	8,000	81,000
Pembina Colliery, Evansburgh	210	94,000	7,000	101,000
Regal Colliery, Dodds	125	10,000	10	10,000
Monarch Colliery, Drumheller	184	38,000	5,000	43,000
Lethbridge Colliery, Coalhurst (Kipp)	208	240,000	19,000	250,000
Oliphant-Munson Collieries, Ltd., Oliphant Mines	208	66,000	1,400	67,000
Peerless Coal Co., Ltd., Wayne	208	15,000	500	14,000
Premier Coal Co., Ltd., Drumheller	165	14,000	500	34,000
Redcliff Brick and Coal Co., Ltd., Redcliff	211	14,000		14,000
Regal Collieries, Limited, Taber	277	21,000	2,000	24,000
Rock Springs Coal and Brick Co., Ltd., Elean	215	20,000	2,000	23,000
Rosedale Coal and Clay Products Co., Ltd., Rosedale	194	104,000	1,000	106,000
Rose Deer Coal Mfg. Co., Ltd., Wayne	177	80,000	5,000	84,000
Round Hill Collieries, Ltd., Roundhill	210	16,000	400	16,000
Seranton Coal Co., Ltd., Drumheller	196	24,000	2,000	26,000
Spicer Coal Co., Ltd., (The) Dinant	230	13,000	600	14,000
Saunders Creek Domestic & Steam Coal Co., Saunders		15,000	400	16,000
Sturgeon Consolidated Collieries, Ltd., Nampa	250	15,000	400	16,000
Tofield Coal Co., Ltd., Tofield	200	32,000	1,000	33,000
Trusts and Guarantee Co., Ltd., Diamond City Mine	1200	33,000	5,000	39,000
Twin City Coal Co., Ltd., Edmonton South	263	40,000	6,000	50,000

Carried forward.

<sup>a</sup> Includes 55,402 used in making briquettes. There were 99,103 tons of briquettes sold, and 1,095 tons used in colliery consumption and sold to workmen. <sup>b</sup> Including 53,402 tons used in manufacturing coke.

# Production of Coal in Alberta in 1918, by Principal Collieries *Continued.*

Name of Company, and Mine names	Days worked	Short tons	Value \$	Average per ton \$
West Canadian Collieries				
Bellevue.....	302	419,963	14,890	434.869
Greenhill.....	297	327,570	5,549	333.128
Western Commercial Co., Ltd., Wayne.....	195	87,401	4,983	92.884
Western Gem Mfg. Co., Ltd., Drumheller.....	221	48,122	4,538	52.080
Yellowhead Coal Co., Ltd., Coalspur.....	278	37,954	2,424	40.408
Total (61).....		5,301,513	473,357	5,774,870
All other Operators (200).....		193,721	4,225	197.946
Total, Alberta.....		5,495,234	477,582	5,972,816

\*Included consumption under boilers, etc., and coal used by workmen.

## Annual Production of Coal in Alberta

Calendar Year	Short Tons	Value \$	Average per ton \$	Calendar Year	Short tons	Value \$	Average per ton \$
1886 .....	43,220	81,112	1.88	1903 .....	495,893	1,117,541	2.25
1887 .....	74,132	157,577	2.13	1904 .....	661,732	1,404,524	2.12
1888 .....	115,124	183,354	1.59	1905 .....	931,917	1,993,915	2.14
1889 .....	97,364	179,640	1.85	1906 .....	1,246,360	2,614,762	2.10
1890 .....	128,753	198,298	1.54	1907 .....	1,591,579	3,836,286	2.41
1891 .....	174,131	437,243	2.51	1908 .....	1,685,661	4,127,311	2.45
1892 .....	178,970	460,605	2.57	1909 .....	1,994,741	4,898,109	2.43
1893 .....	230,070	586,260	2.55	1910 .....	2,894,469	7,065,736	2.44
1894 .....	184,940	473,827	2.56	1911 .....	1,511,039	3,979,264	2.63
1895 .....	169,885	382,520	2.25	1912 .....	3,240,577	8,113,525	2.50
1896 .....	209,162	581,832	2.78	1913 .....	4,014,755	10,418,941	2.59
1897 .....	242,163	630,408	2.60	1914 .....	3,683,015	9,350,392	2.54
1898 .....	315,088	787,720	2.50	1915 .....	3,360,818	8,283,079	2.46
1899 .....	309,600	774,000	2.50	1916 .....	4,559,054	11,386,577	2.50
1900 .....	311,450	778,625	2.50	1917 .....	4,736,368	14,153,685	2.99
1901 .....	41,275	850,687	2.50	1918 .....	5,973,816	20,537,287	3.44
1902 .....	402,819	980,601	2.39	1919 .....	4,964,535	13,294,495	3.68
Total.....				Total.....	51,072,492	140,010,744	

# Disposition of the Total Output of Coal, Briquettes and Coke of Alberta Calendar Year 1919

(From Annual Report of the Mines Branch of the Province of Alberta.)

	Sold for Consumption in					Used		Put to Stock	Lifted from Stock	Lifted from Waste	Total output for year including stock and waste not lifted from stock or waste
	Alberta	British Columbia	Saskatchewan	Manitoba	Ontario	United States	Total Sales	Making Briquettes	Making Coke	Under Colliery Rollers	
Domestic.....	1,219,070	33,111	865,698	270,467	248	6,686	2,385,290			162,364	17,664
Bituminous.....	1,763,178	57,297	245,714	42,547	60	114,199	2,224,175			92,995	5,885
Anthracite.....	8,862	5,083	3,917	1,276		107	19,243	27,950		25,377	364
Total.....	2,991,110	95,461	1,115,329	274,290	308	121,212	4,637,710	27,950		279,836	24,926
Briquettes.....	47,856	4,122	12,287	5,671		70	70,096				454
Coke.....	129	113	63	263			568				568
Total.....	48,985	4,235	12,350	5,934		70	70,664				508

The bituminous coal shown in these tables as being sold for consumption in Alberta includes coal sold to railway companies for the use of locomotives, a considerable percentage of which was probably used in other provinces.

# Disposition of the Total Output of Coal, Briquettes and Coke of Alberta Calendar Year 1918

(From Annual Report of the Mines Branch of the Province of Alberta.)

	Sold for Consumption in					United States	Total Sales	Making Briquettes	Making Coke	Under Colliery Rollers	Lifted from Stock	Stock put on Waste Heap	Total output for year including stock
	Alberta	British Columbia	Saskatchewan	Manitoba	Ontario								
Domestic.....	1,205,419	26,849	1,091,544	387,726	444	3,154	2,715,138			194,148	3,802	129,677	2,035,061
Bituminous.....	2,219,734	69,163	273,195	40,132	183	140,982	2,814,331			109,668	5,788	45,311	2,982,594
Anthracite.....	14,941	5,177	7,700	3,308		40	31,166	56,405		28,847	427	16,147	131,225
Total.....	3,440,154	101,189	1,372,439	511,168	629	141,276	5,558,855	56,405	53,402	232,653	12,907	161,155	6,148,639
Briquettes.....	71,519	4,368	16,060	7,710			99,657					In stock	100,470
Coke.....	222	31,225	222	870			32,661					197	32,858

The bituminous coal shown in these tables as being sold for consumption in Alberta includes coal sold to railway companies for the use of locomotives, a considerable percentage of which was probably used in other provinces.

### British Columbia

The production of coal in British Columbia in 1919 was 2,435,933 tons, as compared with 2,568,589 tons in 1918, a decrease of 132,656 tons, or 5.2 per cent.

Of the total production in 1919, 2,020,826 tons were reported as sales, including 1,168,122 tons sold for consumption in Canada; 852,704 tons sold for export to the United States; 415,107 tons were used by producers, including 163,116 tons for making coke and 251,991 tons for the operation of collieries and by workmen.

The production and distribution of the collieries on Vancouver island, of the Crowsnest district, and of the interior at Nicola and Princeton, are shown separately in the following tables.

The three largest operators in the province were: the Crowsnest Pass Coal Company, with a total production of 541,312 tons; the Canadian Collieries (Dunsmuir), Limited, with 758,641 tons; and the Canadian Western Fuel Company, with 643,520 tons. These three companies contributed 79.8 per cent of the province's production.

Coal production in British Columbia reached a maximum in 1910, with a total of 3,330,745 tons. In the following year the production fell to 2,542,532 tons and the average production during the past nine years has been slightly less—2,532,000 tons. Previous to 1895 practically 80 per cent of the coal production was sold for export. The development of metallurgical and industrial activity, however, during the following fifteen years, greatly increased the home consumption, while the actual tonnage sold for export has not shown any marked change during thirty years.

#### Coal Production by Districts in British Columbia, 1919

(In short tons)

Coal	Vancouver Island	Nicola and Princeton	Crowsnest and East Kootenay	Total
Sold for consumption in Canada.....	940,234	145,583	73,305	1,168,122
Sold for export to United States.....	427,103	7,098	418,533	852,704
Sold for export to other countries.....	nil	nil	nil	nil
Total sales.....	1,376,337	152,681	491,838	2,020,826
Used for making coke.....	62,353	.....	100,763	163,116
Used for colliery consumption, etc.....	186,083	13,421	52,487	251,991
Production.....	1,624,773	166,072	645,088	2,435,933
Per cent.....	66.7	6.8	26.5	100.00
Output.....	1,915,129	168,993	623,836	2,707,958

#### Coal Production by Districts in British Columbia, 1918

(In short tons)

Coal	Vancouver Island	Nicola and Princeton	Crowsnest and East Kootenay	Total
Sold for consumption in Canada.....	858,511	167,819	86,796	1,113,126
Sold for export to United States.....	446,468	13,234	383,284	842,986
Sold for export to other countries.....	65,427	.....	.....	65,427
Total sales.....	1,370,406	181,053	470,080	2,021,539
Used for making coke.....	44,993	.....	264,664	309,657
Used for colliery consumption, etc.....	154,772	16,780	65,841	237,393
Production.....	1,570,171	197,833	800,585	2,568,589
Per cent.....	61.1	7.7	31.2	100.0

## Coal Production by Collieries in British Columbia, 1919

In short tons

Colliery	In Canada	Sold		Total	Used		Production	Lost in washing, etc.	Stocks		Output
		To United States	To other countries		Making coke	Other colliery uses, etc.			End of year	Beginning of year	
1. Harwood No. 1 Mine Reserve and Wakeful	115,951	63,922		179,873		3,976	211,829	32,328	6,813	29,610	290,954
2. East Wellington No. 1, Ingh, Port	175,926	107,317		278,245		62,041	340,284	28,300	38,153	36,987	367,306
3. East Wellington Extension Mine, Ladysmith	46,005	25,347		72,352		18,965	91,497	6,611	3,519	48	94,989
4. Comm. Mines, Cumberland	34,832	25		35,010		6,587	42,197				42,197
5. South Wellington Mines	180,268	71,171		257,399		21,888	279,548	20,337	4,050	2,714	348,309
6. Grant	343,554	124,578		468,092		14,237	479,093	130,892	4,202	12,676	618,479
7. Michael	40,610	23,930		64,540		18,753	83,313	11,061	30,989	58	73,743
8. Corbin	24,421	3,010		27,431		10,022	37,453	11,067	4,214	12,974	42,908
9. Middlebarro	10,976	11,750		25,206		1,325	24,231	1,336	118	128	25,777
10. Inland Coal Hill	15,616	89,853		101,489		16,043	119,512		4,875	110	124,612
11. Princeton	28,950	792,972		821,922		31,055	853,776		30,160	3,673	887,891
12. Coalbrook	81,259	19,688		101,427		5,449	106,876		100	40	107,316
13. Aslamans	41,470			41,470		1,670	43,140	1,800	100	100	44,940
14. Merritt	15,625	2,055		17,680		5,946	23,626	1,278	95	7	24,836
	4,407	3,033		7,440			7,440				7,440
	2,200			2,200			2,200				2,200
	659			659		48	659				659
	1,168,122	853,704		2,020,826		251,991	2,435,933	205,590	17,465	83,640	2,797,958

1. Canadian Western Fuel Company  
 2. British Columbia Coal Mining Co.  
 3. Canadian Collieries (Dunsmuir), Ltd.  
 4. Pacific Coast Coal Mines, Ltd.  
 5. Granby Consolidated Mfg., S., & Power Co., Ltd.  
 6. Nanase Collieries, Ltd.  
 7. Crown's Nest Coal Co., Ltd.  
 8. Coalbrook Coal and Coke Co., Ltd.  
 9. Middlebarro Collieries, Ltd.  
 10. Fleming Coal Co., Ltd.  
 11. Princeton Coal and Land Co., Ltd.  
 12. Coalbrook Collieries, Ltd.  
 13. Telkwa Collieries Co.  
 14. Merritt Collieries, Ltd.

# Coal Production by Collieries in British Columbia, 1918

(In short tons)

Colliery	Sold			Used		Production in wash tag, etc.	Stocks		Output
	In Canada	To United States	To other countries	Total	Making coke	Under colliery facilities, etc.	First of year	Last of year	
1. Harwood No. 1 Mine.....	146,569	75,476	7,729	99,765		8,710	6,961	6,81	256,001
Reserve.....	204,764	110,797	11,313	99,904		66,417	1,008	1,008	441,286
2. East Wellington No. 1 (Single Pit).....	59,024	39,425	3,115	92,564		29,830	1,611	1,611	119,406
3. Wellington Extension Mine, Ladysmith.....	5,176	5,410		10,416		4,664			16,078
4. Cornox Mines, Cumberland.....	164,742	28,638		93,880	76	17,74	967	4,660	275,482
5. South Wellington Mines.....	214,135	141,196	11,340	265,791	14,917	13,114	2,760	4,000	602,956
6. Granby.....	57,983	40,607		77,910		20,777	25,109	4,450	92,345
7. Grant.....	13,809	14,099		17,899		1,711		1,200	18,000
8. Michel.....	12,328	67,514		87,788		1,711			32,260
9. Coal Creek.....	16,274	67,514		87,788		1,711			32,260
10. Corbin.....	34,758	75,128		270,106		20,834	72	100	131,181
11. Middlesboro.....	106,448			106,448		36,664			130,770
12. Inland (Coal Hill).....	35,184			8,823		8,823			18,809
13. Coalmont.....	33,653			35,184		7,263	140	150	113,496
14. Ashman.....	2,800	1,454		24,100		2,817			28,167
15. Coalmont.....	641			4,644		7,200	167	1,005	43,133
16. Coalmont.....									4,344
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1. Canadian Western Fuel Company  
 2. British Columbia Coal Mining Co.  
 3. Canadian Collieries (Dunsmuir), Ltd.  
 4. Pacific Coast Coal Mines, Ltd.  
 5. Granby Consolidated Mfg., S., & Power Co., Ltd.  
 6. Nanaimo Collieries, Ltd.  
 7. Gray's Nest Coal Co., Ltd.  
 8. Carbon Coal and Coke Co., Ltd.  
 9. Middlesboro Collieries, Ltd.  
 10. Fleming Coal Co., Ltd.  
 11. Princeton Coal and Iron Co., Ltd.  
 12. Coalman Collieries, Ltd.  
 13. Telkwa Collieries, Ltd.



## Annual Production of Coal in British Columbia

Calendar Year	Output	Home consumption	Sold for export	Production*		Price per long ton	Value
				Long tons	Short tons		
1873 to 1874	180,785				568,480	4 00	1,923,140
1874	81,547	25,023	50,038	81,064	260,788	3 00	1,111,852
1875	110,145	31,252	66,392	97,644	109,361	3 00	291,932
1876	139,192	17,856	122,329	140,185	157,007	3 00	420,555
1877	154,052	24,311	115,381	139,692	156,455	3 00	479,955
1878	170,846	26,166	164,682	190,848	177,750	3 00	532,544
1879	241,301	40,294	192,006	232,390	260,271	3 00	692,150
1880	267,595	46,513	225,849	272,362	303,945	3 00	817,080
1881	228,357	40,191	189,323	229,514	260,650	3 00	688,541
1882	280,139	56,161	232,411	288,572	329,101	3 00	865,750
1883	213,299	64,786	149,567	214,500	240,075	3 00	643,050
1884	304,070	87,388	306,478	309,800	344,130	3 00	881,768
1885	365,596	95,227	244,497	353,924	403,781	3 00	999,071
1886	326,636	85,987	240,265	327,612	373,445	3 00	1,065,726
1887	413,560	99,216	334,839	434,055	495,412	3 00	1,392,165
1888	489,301	115,953	365,714	481,661	550,494	3 00	1,445,900
1889	579,330	124,574	444,655	568,249	646,439	3 00	1,694,711
1890	678,140	177,075	508,270	689,945	790,585	3 00	2,056,046
1891	1,029,097	202,697	806,479	1,000,170	1,140,007	3 00	3,017,528
1892	826,335	196,223	640,579	828,842	949,000	3 00	2,500,000
1893	978,294	207,851	768,917	976,768	1,120,000	3 00	2,730,794
1894	1,012,953	165,776	827,642	993,418	1,130,000	3 00	2,982,251
1895	939,654	188,549	756,334	944,680	1,080,000	3 00	2,844,049
1896	894,882	261,984	634,238	896,227	1,004,000	3 00	2,688,000
1897	802,296	290,310	619,860	910,170	1,040,000	3 00	2,460,510
1898	1,136,485	375,423	752,863	1,128,280	1,260,000	3 00	3,684,858
1899	1,306,324	526,058	751,711	1,277,709	1,431,000	3 00	3,831,000
1900	1,590,178	685,667	914,184	1,599,854	1,791,833	3 00	4,799,500
1901	1,641,557	799,666	914,163	1,714,829	1,919,488	3 00	5,141,480
1902	1,641,626	837,871	776,809	1,614,080	1,808,441	3 00	4,841,000
1903	1,450,663	947,499	549,449	1,496,948	1,676,000	3 00	4,490,844
1904	1,685,698	1,129,465	533,593	1,663,048	1,867,000	3 00	4,986,174
1905	1,736,696	1,089,667	647,343	1,737,010	1,945,452	3 00	5,211,050
1906	1,809,676	1,236,476	679,829	1,916,305	2,146,262	3 00	5,748,915
1907	2,219,602	1,438,402	673,114	2,111,799	2,364,898	3 50	7,960,306
1908	2,111,931	1,486,511	597,157	2,084,668	2,311,748	3 50	7,292,898
1909	2,388,196	1,585,232	741,667	2,326,899	2,606,127	3 50	8,144,141
1910	2,152,207	1,798,873	1,175,007	2,973,890	3,330,745	3 50	10,408,580
1911	2,304,794	1,657,422	612,696	2,270,118	2,542,532	3 50	7,945,413
1912	2,857,345	1,898,213	906,993	2,865,156	3,208,992	3 50	10,028,146
1913	2,587,357	1,799,643	623,946	2,441,784	2,714,420	3 50	8,482,760
1914	2,182,164	1,397,036	602,785	1,999,821	2,239,799	3 50	6,999,124
1915	1,962,817	1,191,219	653,078	1,844,297	2,065,613	3 50	6,455,044
1916	2,487,012	1,463,152	844,045	2,397,197	2,581,051	3 50	8,075,190
1917	2,375,745	1,380,325	792,789	2,177,111	2,433,888	3 79	8,235,716
1918	2,570,624	1,482,300	811,083	2,293,886	2,568,589	5 01	11,404,981
1919	2,417,820	1,413,597	761,343	2,174,940	2,435,933	5 71	12,420,445
Total				56,161,375	62,900,741		192,194,533

\*This production is obtained by adding "Home Consumption" and "Sold for Export."

52,935 tons of this amount were reported as sales without the deduction of "Home Consumption" and "Sold for Export."

## Yukon

Coal production in the Yukon district in 1919 was reported as 1,100 tons, all the product of the Tantalus Mine of the Five Fingers Coal Company, near Whitehorse.

## Annual Production of Coal in Yukon Territory

Calendar year	Short tons	Value	Average per ton	Calendar year	Short tons	Value	Average per ton
		\$	cts			\$	cts
1901	5,864	86,230	14 70	1911	2,840	12,780	4 50
1902	4,910	37,250	7 59	1912	9,245	44,958	4 86
1903	1,849	29,584	16 00	1913	19,722	95,945	4 86
1904				1914	13,443	53,760	4 00
1905	7,000	21,000	3 00	1915	9,724	38,896	4 00
1906	7,009	28,000	4 00	1916	3,300	13,200	4 00
1907	15,000	60,000	4 00	1917	4,872	29,232	16 00
1908	3,847	21,158	5 50	1918	2,900	11,600	4 00
1909	7,364	49,502	6 72	1919	1,100	4,400	4 00
1910	16,185	110,925	6 85	Total..	136,165	748,450	

\*Part of this production was mined in 1900.

Value not reported, but estimated.

## Coke

The accompanying statistics cover only the production of coke in by-product and beehive coke oven plants and do not include retort coke recovered by gas companies.

Both domestic and imported coal are used in the manufacture of coke in Canadian coke oven plants.

In 1919, 854,835 tons of domestic and 1,025,706 tons of imported coal were charged to coke ovens, from which was obtained an output of 1,160,470 tons of coke, thus averaging 0.617 tons of coke per ton of coal charged. Coke from by-product ovens comprised 89 per cent of the total.

In 1918, 1,348,232 tons of domestic coal, and 635,010 tons of imported coal were charged to coke ovens, from which was obtained an output of 1,258,284 tons of coke, thus averaging 0.634 tons of coke per ton of coal charged. Coke from by-product ovens comprised 70 per cent of the total.

The amount of coke sold or used by producers in 1919 was 1,133,680 tons, as compared with 1,250,744 tons in 1918, a slight decrease.

In addition to the tonnage sold or used by producers, there were imported during 1919, 383,374 tons of coke, while the exports totalled 14,709 tons. The Canadian consumption in 1919 was, therefore, 1,502,345 tons, a decrease of 37 per cent. The consumption of oven coke during recent years has been as follows: 1,285,228 tons in 1908; 1,449,369 tons in 1909; 1,581,832 tons in 1910; 1,677,188 tons in 1911; 1,981,832 tons in 1912; 2,186,170 tons in 1913; 1,509,068 tons in 1914; 1,772,461 tons in 1915; 2,178,318 tons in 1916; 2,192,373 tons in 1917; and 2,386,722 tons in 1918.

## Coke Production, 1919

(In short tons)

Province	Coal charged to ovens	Coke output	Stock on hand		Coke sold or used	Per cent of total production	Value of coke sold or used
			Jan. 1	Dec. 31			
Nova Scotia.....	699,696	394,744	3,034	13,552	383,253	33.82	\$ 3,939,906
Ontario.....	*1,025,706	667,081	9,281	26,856	649,506	57.29	4,886,662
Alberta.....			565		565	0.04	3,602
British Columbia..	155,139	98,645	2,164	453	100,356	8.85	750,217
Total.....	1,880,541	1,160,470	15,044	40,861	1,133,680	100.00	9,720,387

\*All imported coal.

## Coke Production, 1918

(In short tons)

Province	Coal charged to ovens	Coke output	Stock on hand		Coke sold or used	Per cent of total production	Value of coke sold or used
			Jan. 1	Dec. 31			
Nova Scotia.....	985,113	581,870	1,597	3,034	580,433	46.41	\$ 5,966,609
Ontario.....	* 635,010	431,970	2,424	9,307	425,087	33.99	3,300,127
Alberta.....	53,462	32,801	505	652	32,654	2.61	213,884
British Columbia..	309,657	211,643	3,300	2,373	212,570	16.99	1,554,575
Total.....	1,983,242	1,258,284	7,826	15,366	1,250,744	100.00	\$ 11,035,195

\*All imported coal.

## Distribution of Coke Production, 1919

(In short tons)

	Nova Scotia	Ontario	Alberta	British Columbia	Total
Sold in Canada.....	1,629	109,961	565	71,305	183,460
Sold for export.....				9,109	9,109
Total sales.....	1,629	109,961	565	80,414	192,569
Used by maker in blast furnace or otherwise.....	381,624	539,545		19,942	941,111
Total sold or used.....	383,253	649,506	565	100,356	1,133,680
Number of ovens in operation Dec. 31...	86	240		261	587

## Coke Production

(In short tons)

Year	Coal charged to ovens	Coke output	% Recovery per charge	Stock on hand		Coke sold or used	Value of coke sold or used	Average price
				Jan. 1	Dec. 31			
1910.....	1,373,793	901,269	65.6	19,216	17,770	902,715	\$3,462,872	\$3.84
1911.....	1,409,844	954,383	67.7	17,826	36,560	935,651	3,630,410	3.88
1912.....	2,053,807	1,406,028	68.5	39,073	33,872	1,411,229	5,164,331	3.66
1913.....	2,247,913	1,517,133	67.5	33,926	20,560	1,530,499	5,919,596	3.87
1914.....	1,541,547	1,015,253	65.9	20,634	12,027	1,023,860	3,658,514	3.55
1915.....	1,856,393	1,200,766	64.7	8,671	38,964	1,170,473	4,258,580	3.64
1916.....	2,134,911	1,448,782	67.9	38,934	17,975	1,469,741	6,049,412	4.12
1917.....	1,928,923	1,231,865	63.9	22,653	7,827	1,245,862	6,662,581	5.35
1918.....	1,983,242	1,258,284	63.4	7,826	15,366	1,250,744	11,035,195	8.82
1919.....	1,880,541	1,160,470	61.7	15,044	40,861	1,133,680	9,720,387	8.57

## Annual Production of Coke

Calendar Year	Short Tons	Value	Average per Ton	Calendar Year	Short Tons	Value	Average per Ton
1886.....	35,396	\$ 101,940	\$2.88	1903.....	561,318	\$1,734,404	\$3.09
1887.....	40,428	135,951	3.36	1904.....	554,083	2,032,048	3.66
1888.....	45,373	134,181	2.96	1905.....	700,488	2,436,211	3.48
1889.....	54,539	155,043	2.84	1906.....	782,055	2,863,503	3.66
1890.....	56,450	166,298	2.95	1907.....	842,003	3,583,468	4.26
1891.....	57,084	175,592	3.08	1908.....	858,257	3,449,361	4.02
1892.....	56,135	160,249	2.85	1909.....	862,011	3,454,393	4.04
1893.....	61,078	161,790	2.65	1910.....	902,715	3,462,872	3.84
1894.....	58,044	148,551	2.56	1911.....	935,651	3,630,410	3.88
1895.....	53,356	143,047	2.68	1912.....	1,411,229	5,164,331	3.66
1896.....	49,619	110,257	2.22	1913.....	1,530,499	5,919,596	3.87
1897.....	60,686	176,457	2.91	1914.....	1,023,860	3,658,514	3.55
1898.....	87,600	286,000	3.26	1915.....	1,170,473	4,258,580	3.64
1899.....	100,820	350,022	3.47	1916.....	1,469,741	6,049,412	4.12
1900.....	157,134	649,140	4.13	1917.....	1,245,862	6,662,581	5.35
1901.....	365,531	1,228,225	3.36	1918.....	1,250,744	11,035,195	8.82
1902.....	502,043	1,519,185	3.03	1919.....	1,133,680	9,720,387	8.57

## Annual Production of Coke by Provinces

Calendar Year	Nova Scotia		Ontario		Alberta		British Columbia	
	Short Tons	Value	Short Tons	Value	Short Tons	Value	Short Tons	Value
		\$		\$		\$		\$
1897..	41,532	90,950					19,154	85,507
1898..	48,400	111,000					39,200	175,000
1899..	62,459	178,767					38,361	171,255
1900..	61,767	223,395					95,367	425,745
1901..	222,694	590,590					142,833	637,665
1902..	303,330	899,930					138,713	619,255
1903..	371,745	888,094					189,753	846,310
1904..	275,927	808,022			20,984	78,936	257,172	1,148,090
1905..	386,366	1,054,712			44,866	179,464	269,250	1,202,035
1906..	476,364	1,540,976			69,486	268,042	236,205	1,054,485
1907..	524,110	1,688,070			76,321	297,595	241,572	1,049,432
1908..	505,929	1,658,151			75,645	309,019	276,683	1,482,191
1909..	492,992	1,608,092			87,233	366,734	281,786	1,509,567
1910..	508,058	1,655,775	24,685	148,110	121,578	486,312	248,394	1,172,675
1911..	557,554	1,814,977	259,554	1,318,303	36,216	146,251	82,327	350,879
1912..	625,918	1,840,129	379,854	1,709,343	105,684	424,027	299,773	1,190,832
1913..	722,038	2,352,153	419,287	1,991,613	67,403	269,612	321,771	1,306,218
1914..	343,289	1,118,614	386,314	1,352,099	29,059	116,236	265,198	1,071,565
1915..	585,873	1,905,766	285,251	1,141,004	23,826	95,304	275,523	1,116,506
1916..	654,433	2,617,732	472,507	2,008,155	41,950	167,800	300,851	1,255,725
1917..	643,757	3,218,785	389,048	2,155,326	31,649	181,982	181,408	1,106,488
1918..	580,433	5,966,609	425,087	3,300,127	32,654	213,884	212,570	1,554,575
1919..	383,253	3,939,906	649,506	4,886,662	565	3,602	100,356	890,217

## Output of Coke Showing Beehive and By-Product Coke Separately

(In short tons)

Calendar Year	Beehive	%	By-Product	%	Total
1909..	471,045	54.0	400,682	46.00	871,727
1910..	491,378	54.5	409,891	45.5	901,269
1911..	242,311	25.4	712,077	74.6	954,388
1912..	402,054	28.6	1,003,974	71.4	1,406,028
1913..	498,501	32.9	1,018,632	67.1	1,517,133
1914..	322,701	31.8	692,552	68.2	1,015,253
1915..	391,380	32.6	809,386	67.4	1,200,766
1916..	443,460	30.6	1,005,322	69.4	1,448,782
1917..	317,399	25.8	914,466	74.2	1,231,865
1918..	379,218	30.1	879,066	69.9	1,258,284
1919..	124,241	10.7	1,036,229	89.3	1,160,470

## Annual Exports of Coke

Calendar Year	Short Tons	Value	Calendar Year	Short Tons	Value
		\$			\$
1897..	2,987	6,078	1908..	58,708	248,759
1898..	3,774	8,394	1909..	74,067	329,051
1899..	5,557	18,726	1910..	57,921	250,715
1900..	41,529	131,278	1911..	9,852	39,823
1901..	57,565	176,990	1912..	57,744	252,763
1902..	62,568	180,920	1913..	68,235	308,410
1903..	32,608	135,957	1914..	67,838	306,117
1904..	102,463	345,031	1915..	35,869	160,053
1905..	116,071	509,908	1916..	48,539	221,334
1906..	37,003	168,571	1917..	23,595	137,318
1907..	70,617	320,357	1918..	29,612	223,629
			1919..	14,709	129,703

## Annual Imports of Oven Coke

Calendar Year	Short Tons	Value	Calendar Year	Short Tons	Value
		\$			\$
1907.....	624,649	2,206,084	1913.....	723,906	2,180,830
1908.....	426,971	1,135,125	1914.....	553,046	1,585,259
1909.....	661,425	1,508,627	1915.....	637,857	1,608,464
1910.....	737,088	1,908,725	1916.....	737,116	2,229,078
1911.....	751,380	1,843,248	1917.....	970,106	6,517,260
1912.....	628,174	1,702,850	1918.....	1,165,590	8,975,445
			1919.....	383,374	2,405,740

The Nova Scotia coke was made at Sydney and Sydney Mines, the ovens formerly operated at Westville being idle throughout the year.

In Ontario the production came from the Algoma Steel Corporation plant at Sault Ste. Marie, and from the new ovens operated by the Steel Company of Canada, at Hamilton, Ont.

In Alberta the coke oven plants at Lille, Passburg and Coleman were idle.

In British Columbia coke was made by the Crow's Nest Pass Coal Company at Fernie and Michel, the Canadian Collieries (Dunsmuir), Limited, at Union Bay, and the Granby Consolidated Mining and Smelting Company at Anyox.

The coke production of the eastern provinces is used almost entirely in the iron and steel industry, while that of the western provinces is used chiefly by the copper and lead smelters, finding a market in the United States as well as in Canada.

## Coke Oven By-Products

The coke-oven plants at the Dominion Iron and Steel Company, at Sydney, N.S.; Sault Ste. Marie, and Hamilton, Ont.; and Anyox, B.C., are by-product plants, and the recoveries of coke oven by-products in 1919 included 12,394,249 gallons of tar; 11,765 tons of sulphate of ammonia, together with important quantities of benzol, toluol, and solvent naphtha and naphthalene.

## Annual Production of Coke Oven By-Products

Year	Tar	Sulphate of Ammonia	Year	Tar	Sulphate of Ammonia
	Gallons	Short Tons		Gallons	Short Tons
1901.....	2,662,612	1,614	1910.....	3,963,591	3,491
1902.....	4,094,135	2,393	1911.....	6,464,155	7,124
1903.....	3,281,249	3,207	1912.....	8,428,896	11,289
1904.....	1,649,197	1,773	1913.....	8,371,600	10,608
1905.....	3,407,784	2,500	1914.....	5,714,172	8,572
1906.....	3,725,723	2,304	1915.....	7,365,931	10,448
1907.....	4,424,615	1,738	1916.....	9,012,202	11,040
1908.....	4,450,166	3,342	1917.....	8,277,078	9,941
1909.....	4,016,824	3,416	1918.....	8,009,327	10,825
			1919.....	12,394,249	11,765

The imports of sulphate of ammonia in 1919 were reported as 203,408 pounds, valued at \$12,129, as against imports in 1918 of 8,427 pounds, valued at \$1,273; imports in 1917 of 566,969 pounds valued at \$26,062, imports in 1916 of 239,096 pounds, valued at \$9,672; imports in 1915 of 503,158 pounds, valued at \$14,637; and imports in 1914 of 763,597 pounds valued at \$21,335.

Exports of sulphate of ammonia during the twelve months ending December 31, 1919, were 18,488 tons, valued at \$1,821,880, as compared with exports in 1918 of 8,696 tons, valued at \$1,027,558. The exports during previous years have not been separately recorded.